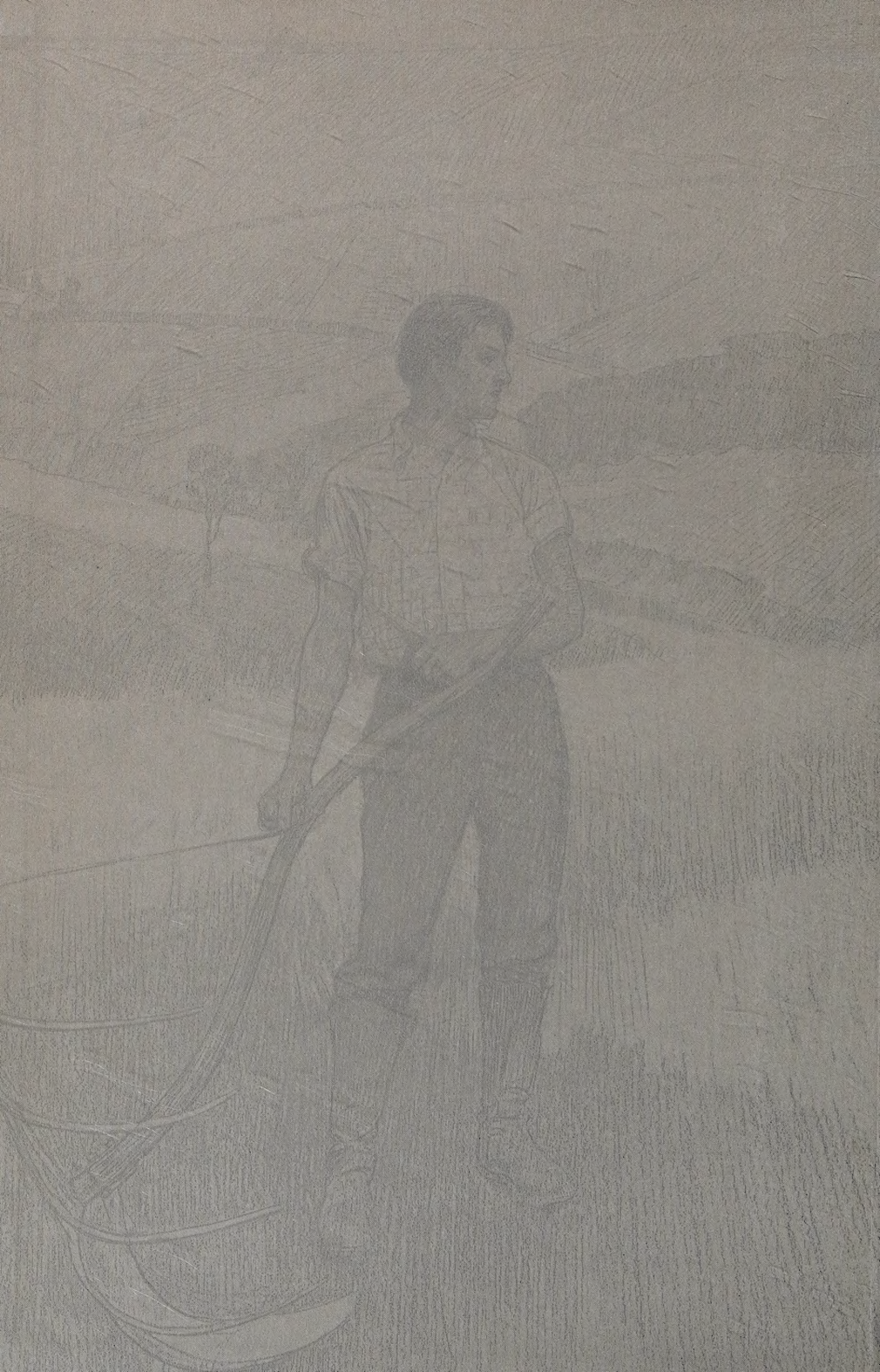

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Lewis Miller

Lewis Miller

A Biographical Essay

By

Ellwood Hendrick

Author of *Percolator Papers*, *Everyman's Chemistry*, etc.

Illustrated

G. P. Putnam's Sons
New York & London
The Knickerbocker Press
1925

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INTRODUCTION

It is little more than a quarter of a century since Lewis Miller died, and as yet there has been no comprehensive record of this extremely useful and active life. Fortunately, however, this lack of information about him has now been supplied in this Biographical Essay by Ellwood Hendrick, who has carefully collected a great deal of reliable data in regard to him, and has presented in this work an excellent picture of the man as I knew him, set in a background of the times in which he lived. It is quite surprising that there should have been no adequate biography of a man who was unique in many ways, being one of the group of great inventors and manufacturers who lived in the latter half of the previous century, and one who did so much for education and the general uplift of mankind.

He was born in Ohio, in the pioneer days when life was simple and primitive, and schools were few and far between. He grew up in the "School of Hard Knocks," acquired a liberal

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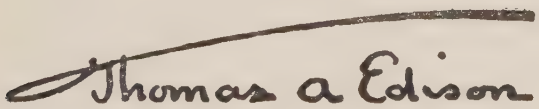
education, invented some of the most useful labor saving machines which had ever been brought out up to that time, contributed, probably, more to the cause of popular education than any other teacher of his time and helped to introduce more innovations into the schools for higher education than many College Presidents. He had an extraordinary amount of energy and was one of the most industrious of men, constantly working out something constructive. He did not believe that recreation consisted in wasting valuable time in doing nothing or useless things, but taught, both by precept and example, that true recreation consisted rather in a change of useful occupation. He would work hard all day at the factory designing new machines and new ways of making them and then go home and spend half of the night working out some new scheme in education. All through the year he was busy with making and improving harvesting machinery, and with his wide civic interests; at the same time he was working just as hard to found a great summer institution, and build it up till it became largely what it is to-day. He loved doing things like Chautauqua.

If inventing and manufacturing were his vocation, education was his avocation, and he surely accomplished as much, if not more, in the time he spent at the latter as he did at the former.

He should have been a professional educator, for it was this that he loved best to do; and what a wonderful University President he would have made, with his great organizing and administrative ability, his originality and fearlessness of thought and his great capacity for selecting the right men for important positions and then to keep them working together in peace and harmony.

He was one of the kindest and most lovable men I ever knew, and spent his life trying to make it possible for all mankind to reach the higher planes of living. To me, he seemed to be eternally making money in his factory in order to enable him to better carry on his schemes for education.

I am sure that this book will prove an inspiration to all young men who read it; as it is a concrete example of what may be done by any one who has the will to do that which he sets out to accomplish.



Llewellyn Park,
West Orange, New Jersey,
May 1, 1925.

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LEWIS MILLER

LEWIS MILLER

CHAPTER I

THE BEGINNING OF THE FAMILY IN AMERICA

The Minister of Education of a great country once said to a colleague: "If I had my way I should turn all boys out into the woods from the time they are eight or nine years of age until they are seventeen. They would be under reasonable surveillance so as to avoid injury from exposure and lack of food, but their business would be to learn the art of living; to learn how to provide rations and shelter for themselves, and also to get along with their fellows. They would learn about human nature and the sure-footed procession of consequences before they learned their letters. At seventeen I should begin school with them, and I verily believe that in four years' time they would get as far ahead under my teaching as do those who go to school at six and remain caged up until they are twenty-two. And what a preparation for life they would have!"

The ideal situation outlined by the Minister of Education was only in part fulfilled for Lewis Miller. As soon as he was able he had to help on the farm, to look after the stock, and to watch for Indians who might be friendly, and again who might not. There wasn't any governess or manual training master to show him how to do things. If father told him to go out and cut wood he was supposed to have learned how by observation and practice. There were other children, older and younger, from whom to learn the ways of human nature, and also hired men, especially in harvest time.

What Lewis Miller lacked of the ideal schooling outlined above was the schooling itself. There was no gifted teacher to take him in hand at the age of seventeen; no Mark Hopkins to sit at one end of a log with the boy at the other; no kindly leading into the gentle shades of Academe; no vision of Greek temples or joyous festivals or happy dances, or of the wonderful Greek drama with its pendulum of fate. He was born and he grew up in an age that was Spartan in discipline, narrow in outlook and hard in expression.

July 24, 1829, was his birthday, and his birthplace was a farm in Greentown, Ohio, which lies between Canton and Akron. The lay of the land was the same then as it is at present, but the conditions were wholly different from those which

JOHN MILLER
Father of Lewis Miller and third son of Abraham Miller

now obtain. John Miller, father of Lewis, was a son of Abraham Miller who first saw the light in 1749, in the "Province of Bavaria," according to the genealogical records of the Fouse family into which his descendants married. This probably means the Palatinate, and more specifically that he came from Zweibruecken. He had served as a soldier in the Seven Years' War in Germany, and he came to America about 1776, landing at Baltimore. Unfortunately the records of that port of entry have not been preserved, so that precise data are unavailable. From Baltimore he went to Funkstown, now part of Hagerstown, Md., and located there. Soon after he enlisted in a company of the Continental army then being recruited, and it appears that he participated in the battles of Stony Point, Brandywine, Germantown, Trenton, Monmouth, and the Siege of Yorktown, and also that he was with Washington at Valley Forge. He remained in the service until the close of the war when he was honorably discharged. The Pennsylvania records tell of an Abram Miller who sat as officer in judgment at courts martial, but it is not clear whether this is the same person or not.

We shall observe of the family as it developed in this country, that until Lewis Miller married it was wholly of German origin. We must bear in mind, however, that these people were in no

sense the arrogant Prussianized Germans of 1914. They left middle Europe upwards of a century before the German Empire was organized, and were wholly free from the traditions of wrath that later developed in that unhappy country. They were true eighteenth century Americans, pioneers who built up Germantown in the Philadelphia district and who settled the Middle West, supplanting the Indians in forests and on plains. They contributed one of the most valuable strains to our conglomerate population, and were of singular helpfulness in founding the republic. With the exception of certain followers of peculiar religious sects, as, for instance, the Menonnites, they have become thoroughly absorbed in American life.

Abraham returned to Funkstown and married Elizabeth Clapper who bore him the following children:

Susannah	1784-1886
Catherine	1785-1862
John	1786-1875
Abraham	1787-1852
Elizabeth	1789-1866
Mary	1790-1824
Henry	1792
Lewis	1794

Then, in 1796, Elizabeth Clapper died, and in 1798 he married for his second wife Savilla Lauer

who bore him one child, a daughter, Christine, in 1801.

Here we must introduce the Fouse family. The name in Zweibruecken, Germany, whence the two brothers Nicholas and Theobald emigrated after the American Revolution, was Fauss, but just as Mueller became Miller, and Jorg became York, because the names sounded so to the pedagogic ear, Fauss became Fouse. It is very probable that Abraham Mueller and Nicholas Fauss had been boys together in Zweibruecken, and that they maintained a correspondence after the former came to America, for Nicholas followed Abraham to Hagerstown, then Funkstown, Maryland, married there and established his farm there.

Abraham had learned the metal worker's trade, and he worked as a blacksmith and maker and repairer of farm implements until he was able to set up for himself as landowner and farmer.

From the excellent *Genealogy of the Descendants of Theobald Fouse* (the father of the two brothers who emigrated) by Dr. John Brumbaugh and Joseph Garner Fouse, we have a number of details of what occurred to the two families in Maryland and Pennsylvania, and of their removal to Ohio.

How restless are the feet of Pioneers! Nicho-

las Fouse established himself well in Maryland, but in 1789 he sold out and moved with his family to Blair County, Pennsylvania.

It was probably the death of his wife Elizabeth Clapper in 1796 that made Abraham Miller restless, for in that year he too sold out and moved to Pennsylvania with his family as his friend Nicholas had done seven years before. Here he bought 220 acres of land four miles from the Fouse farm, not far from Altoona. And it was here he married his second wife Savilla Lauer.

In those days there were no matches, and to obtain fire from flint and tinder or by friction was so bothersome that it was usual, if the hearth cooled down, to "borrow fire" from a neighbor—if there was a neighbor. Spinning and weaving were done at home. Some of the boys and girls became adept at weaving while others never learned to master the loom. Mother usually persuaded one or more of the boys to help the girls at these tasks in the evening after the day's farm work was done.

The Fouse and the Miller farms were along the same stream; the two neighbors helped organize a Union German Church for Reformed and Lutheran services; there were three marriages to bind the two families, and the friendship between the patriarchs endured.

Here in Pennsylvania they remained for years and it would appear that they were firmly rooted there but for the wander-spirit of the pioneer that had still to be reckoned with.

In 1812 Abraham Miller sold his Pennsylvania farm to Michael Bosler for $5850, a considerable sum for those days, but kept his family in that State for two years while he and his second son, also Abraham, made occasional trips to Ohio to spy out the land to the westward. John the eldest son meanwhile evidently worked at his trade as cabinet-maker. Then, on June 13, 1813, Abraham bought two sections of land of 640 acres each, in the hardwood virgin forest in Ohio, for $1344.48. This was in Stark County, to the north of the little village of Canton and at Canal Fulton. When they returned, after a second visit in 1814, Abraham the younger married Elizabeth Fouse, and two days later Abraham Miller the elder with his wife and all his children, including the bride of his son and namesake, set out in a canvas top Conestoga wagon or prairie schooner, drawn by good horses, on the long trail to the woods of northern Ohio.

There was nothing there but woods and Indians. There was not even shelter. Until the men could fell trees and build a log hut the family slept in the covered wagon to keep clear of the gray wolves that prowled about. To cook and

eat they had to spread sheets over the bushes as protection from sun and rain. It is recorded that often the women lost heart and cried bitterly over the hardships and the loneliness of it all. But the men persevered, working hard, clearing the woods, though finding very little market for the hardwood timber that they cut, while as for such produce as they could raise, it had to be transported fifty miles north to Cleveland, to be exchanged for a few necessaries, such as salt and leather. They did not get more than a side of sole leather for a whole load of wheat. Of course Cleveland was no metropolis. In 1800 it had a population of 57, in 1814 under 100. By 1830, however, this had increased to 1076, owing to the opening of the canal from the south.

What could have been the drive of these men into such hardships, after they had cleared land and established themselves in comfortable homes? Why didn't they stay in Pennsylvania? Abraham Miller was sixty-five years old at the time he followed the long trail with his family. The probable answer is that they found it profitable to move. They could sell a farm of cleared land for much more than they had originally paid for it, and in those days that was about the only profit available to them. On an improved farm they could always make a living, but their mar-

kets were so restricted that they could set very little aside.

Abraham Miller wrote his name Müller, and in his Bible on the birth of his first child he inscribed:

Susanna Müllerin ist geboren den 6ten Junyus, 1784

About as soon as Abraham and his family were settled in their log cabin, Nicholas Fouse sold his Pennsylvania place and followed his friend Abraham to Ohio as he had followed him to Maryland; and in the course of time his son Jacob Fouse married Elizabeth Miller and another son, John, married Christine, daughter of Abraham Miller by his second wife Savilla Lauer.

Abraham prospered, and so did his friend Nicholas. Their clearings of land were large and in old age each was in a position to endow his children with good farms. Then in 1824 Abraham died, and he lies buried in St. Jacob's Cemetery at Cairo, Stark County, Ohio. To his son Abraham he left land at Canal Fulton, and to John a large property at Greentown, all in Stark County.

John Miller, though a cabinet-maker by trade, addressed himself principally to farming. Occasionally he did some carpentering in Green-

town and he built himself, first a log cabin, and later a brick house for which he did all the interior finish and cabinet work. A number of desks made by him are still extant and attest his skill.

He (John Miller) did not marry until after the family migration to Ohio, when in 1823, at the age of thirty-seven, he took to wife Mary Elizabeth York of Stark County in that State. In the German Bible York is spelled Jorg, and again Borg, which looks like a slip of the pen. At school the children gave their names to a Yankee teacher who recorded them as they sounded to him, the children adopting the teacher's spelling, which probably accounts for Jorg becoming York. The York family had migrated from Centre County, Penna., to Ohio after the Millers were settled there. The children born to John Miller and his wife Elizabeth York Miller were:

Abraham	March 6, 1824–1891
Jacob	September 26, 1827–1889
and	
Lewis	July 24, 1829–February 17, 1899,

of whom this book is written.

Of Elizabeth York, or Jorg, the mother of Lewis Miller, there are no intimate personal records. She was born on February 22, 1807, which shows that she was married at sixteen. She

died at the age of twenty-two, shortly after the birth of her third child. The young life was finished and the book closed nearly a hundred years ago. No likeness of her remains. She died in the log cabin before her husband could build a brick house for her. There is a tradition that she was handsome, and that her boy Lewis, who of course could not remember her, had her eyes. There must have been something very fine in her. Despite the little we know of heredity certain principles are established, and one of these is that the strain, the breed, is important. We shall soon have to do with one of her sons who conceived great things and did great things for human welfare, and who spent a long life in mighty efforts to aid in establishing the kingdom of God on earth. So it stands to reason, even biologically speaking, that this child-mother with the big eyes, who lived but a little while, who worked much, and who suffered too, must have had a spiritual vision that reached far beyond the walls of the log cabin in the woods. Men who accomplish things are usually born of women who are endowed with imagination. To us of to-day Elizabeth York Miller is only a shadow, but in her time she was an important link in a chain of great consequences. If we could only call her back to tell us a chapter for this book, how illuminating it would be!

There is one phase of the York strain that is especially noticeable. Elizabeth York, mother of Lewis Miller, had an elder brother George who owned the farm across the road from John Miller. George York married Elizabeth Buchtel, a sister of John R. Buchtel of Akron who later became a partner of Lewis Miller. Now, as we have seen, the mother of Lewis Miller died a few months after his birth, but by great good fortune a son, John Buchtel York, was born to George and Elizabeth York on August 24th, 1829, one month after the advent of Lewis. So the Yorks took their motherless nephew into their home, Mrs. York nursing him and caring for him along with her own infant, until he was duly weaned and his father married again on December 15, 1830.

Unlike either of his two full brothers or any, except one, of his half brothers and sisters, Lewis Miller had a passion for education, and more particularly for the art of teaching. It was no less than a passion, because all his life nothing could hold him from it. Indeed neither pressure of affairs nor the later responsibilities of wealth could ever restrain him.

And now let us follow the careers of just one family of the York cousins. There was John Buchtel York, born one month later than Lewis Miller, who shared his mother's breasts with him.

John went to Mt. Union College, stayed there for a long time as a member of its faculty, then moved to Randolph, Ohio, and taught school there for the rest of his life. "He was a born teacher," says his daughter; "he couldn't help teaching!" His son Lewis Edwin York prepared himself for a teacher's career, and for the last thirteen years of his life (he died April 18, 1924) was Superintendent of Schools at Massilon, Ohio. He was acknowledged to be one of the vital forces in pedagogy in the State. After two years at Allegheny College and two at Mt. Union he did postgraduate work at Clark University, and later at Columbia. He took three degrees: B. Sc., B. Phil., and M. Phil. His constant effort was towards developing a more complete mastery of the subtle art of imparting knowledge and developing character.

George Washington York, a brother, became interested in the honey-bee, and is one of the leading authorities on the subject in America. He is Ex-President of the American Beekeepers' Association, and is editor of a periodical, "The Honey Bee."

Mary Elizabeth York, a sister, taught school first, then music, until she married.

Another sister, Louise, taught school in Portage County, Ohio, until she married.

Florence, the youngest sister, had difficulty

with her eyes, so that she could not teach regularly. She married early but always taught in Sunday School.

From this it appears that the York strain is essentially a teaching strain, concerned with the spread of human knowledge.

To come back to Lewis Miller. On December 15, 1830, his father John Miller took to himself a second wife, Elizabeth Tawney, whose family came from Pennsylvania. She was the widow of Cornelius Aultman of Uniontown, Stark County, Ohio, by whom she had two children, Lydia and Cornelius, and these she brought to her new home. That, with the Miller children, made five, Lewis, the youngest, being but a baby. In due time six more children were born to the pair, of whom four grew to maturity. They were:

Elizabeth	Nov., 1831–Sept., 1863
John E.	(married Emily Huntington who wrote children's books under the name Emily Huntington Miller) Aug., 1834–1882
Henry	(died young)
Solomon	Sept., 1838–1893
Franklin	(died young)
Levi	July, 1842

And they all lived together on the farm.

John Miller the father was a religious man and pious according to the lights of his day and gen-

ELIZABETH TAWNEY AULTMAN MILLER

eration. The picture of him that is best remembered by his youngest son shows him sitting with a great German Bible on his knee, and citing Levitical Law as the standard of righteousness. In this piety he was joined by his second wife, so that Lewis and his brothers and sisters were brought up in the fear and nurture of the Lord.

Elizabeth Tawney Aultman was also of German parentage, and like her husband preferred to speak the language she had learned first, so that the children used that tongue before they acquired English.

In religious persuasion John Miller was German Reformed, the one-time Calvinistic and later more liberal branch of the German Protestant Church, but there being no congregation of that denomination accessible, he attended his wife's church. She was a Methodist without any doubt about it, firm as a rock in the faith, and as active as she was firm. The whole family accordingly became good Methodists. Lewis joined the church when he was twelve years of age, after a revival.

The sense and practice of humor in those days was apt to be in consonance with the rest of life, somewhat crude and rough. As an instance of this when Lewis was three years old, the circuit-riding preacher visited the house, and according to custom the host prepared and shared with him a

good stiff toddy. The guest offered a sip to the small child, who, finding it sweet, liked it. So as much was given to him as he could take, and it made him drunk, very drunk indeed. He strutted and stumbled and staggered until the two men nearly split their sides laughing. It was funny —in those days; very funny. It is fair to believe, however, that the good house-mother was not present on this occasion. It doesn't look like a joke a woman would countenance. A fair guess is also that when she found out about it she said things, for she was by no means a shy, reticent woman.

Her love for children was a veritable passion. Not only did she look after and care for the three sets that composed the family—the Aultman, the York-Miller and the Tawney-Aultman-Miller youngsters—but she adopted three children of a destitute clergyman, and did her best to bring them up. But in spite of her motherly attentions all three died.

Every morning after breakfast the father read aloud from the German Bible after which the mother offered up prayer, also in German. She was a remarkably vigorous person, a tireless worker, and when all the tasks of the day were over she enjoyed her pipe and a good talk by the fireside. She had a considerable gift of speech, and she did not measure it.

THE BRICK HOUSE AT GREENTOWN

The home of John Miller where his son Lewis Miller grew up

It was the father's custom also to say grace, in German, before every meal.

Of the Miller children Abraham resolved to be a farmer; accordingly his father turned over to him some land across the road from his own place and on this Abraham established himself, marrying and remaining there all his days.

The other boys all worked on their father's farm in Greentown, but none with the love for it that marked Abraham.

There was no Public School in the place at that time, but Greentown boasted a subscription school, and this was attended by all the Miller children. Lewis not only studied there with great assiduity, but also he was an omnivorous reader in his leisure hours. He had an intense desire to get an education, and he neglected no opportunity to achieve this ambition. By the time he was sixteen we find him teaching school, and with this experience he developed that passion of the true educator that marked his whole career. In this rural school he learned that teaching is a distinct art, the greatest of all arts, full of subtleties, hard to acquire, and only to be mastered through a love for the subject coupled with diligent practice and constant invention. Lewis Miller either studied at school or taught school every winter until he attained his majority.

CHAPTER II

AN AUTOBIOGRAPHICAL RECORD

TOWARD the close of his life it was urged upon Lewis Miller to write a record of his own career. He made a beginning, but no doubt other interests in his crowded days prevented him from completing it. Fortunately, however, a fragment has been preserved which gives a graphic picture of life and times in the old log cabin where his first years were passed.

"My earliest recollections," he tells us, "are first of my mother, then of my father. There are no portraits of my parents as they appeared during my childhood, for Daguerre had not then made his interesting discovery, but as long as I myself live there will surely remain at least one person on whose memory their pictures are indelibly impressed.

"In addition to my father and mother my beginnings of life comprise impressions of my three older brothers. Their names were Cornelius, Abraham and Jacob, and when spoken to by our

parents they invariably got their names in full. But among ourselves we boys unconsciously lapsed into the shorter baptism of Neal, Abe, Jake and Lew, which held among us while life lasted. And now, after the long continued entreaty of many good friends, comes Lew, the only survivor of this boyish group, to give some account of his stewardship, and to rescue from oblivion such of the incidents and experiences of a busy life as may be of interest to those who follow after.

"As a matter of fact Cornelius Aultman, whom I have mentioned as an older brother, was not a blood relation of mine, nor was the woman to whom I have given the sacred name of Mother. But she was my foster-mother, and she was a good mother to me; and he was my foster-brother. Therefore, as in life, so now in this history, those relations of mother and brother will be retained. The peculiar dispensations of Providence that fused us into one family will be explained hereafter.

"At the time of which I speak our home was located on a wooded declivity facing a charming valley, through the bottom of which a small stream wended its way southward. This stream had its birth in a broad marsh only a little way off. The waters in the creek in front of our house flowed southward, through the Ohio and

Mississippi into the Gulf of Mexico. A similar streamlet left the marsh at its northern edge, and, flowing through the Cuyahoga and Lake Erie, its waters went into the Gulf of Newfoundland. This marsh is therefore, topographically speaking, a summit elevation. Probably it was once a lake which, owing to the perfect tranquillity of its waters, peculiarly favored the growth of aquatic plants from the decay of which it was at length filled up.

"In my early days the surface covering of this low-high ground was shaky, and was covered by a dense growth of intertwined bushes and plants. The larger animals could not venture upon it without being swamped, but there were in it no hidden recesses that were not explored time and again by our quartette of boys in their bare feet. I think I can still hear the glorious wave of bird songs that arose from those thickets in the spring, the hum of its invisible orchestra of insects in the summer days, the great chorus of its frogs at night, and that I can see the myriad-tinted coloring which the autumn frosts painted upon this well-remembered spot.

"My father was a farmer who had made his home in the virgin woods. He wrested his fields from the forest with his axe, and by the help of that simple implement he had also built the house in which we lived. Though built of logs it was

ONE OF THE MANTELS IN THE BRICK HOUSE AT GREENTOWN

Made by John Miller

Note the Books used as Capitals on top of the columns which support the shelf

roomy and comfortable. It would be wrong to infer, from the primitive character of its construction, that it was a poverty-stricken place. My parents were industrious, thrifty, and well-to-do. Their fields and orchards produced almost everything we needed, and if our home lacked the luxuries of modern life, the essentials were always present in abundance.

"The location of our house on a gentle declivity, as before mentioned, was determined upon by reason of the presence there of a beautiful, perennial spring of pure water. A little below the source of this spring its waters were conducted through a spring house, and still lower down they flowed through a watering-trough. This spring, so fruitful of blessings to man and beast, was therefore a precious part of our possessions, and it is interwoven with my boyhood memories with many grateful recollections.

"I can see that spring-house yet, after a lapse of more than three-score years. In its deep cool recesses my mother kept fresh and ready for instant use, the things which, by the help of a boy-appetite, could besprinkle life with an exquisite quality of bliss. The fragrance of it to me was far above that of the lilies of the field.

"Like most pioneers my father had an eye to convenience in locating near the spring, which necessitated living some distance from the public

road. An isolation that would be considered unbearable nowadays was not complained of then. Those men were busy; very busy. They had families to bring up, and forests to subdue, and homes to make, and those things could be brought about only by the power of their right arms. To be sure, we had plenty of neighbors. Not the kind of neighbors who live within a stone's throw; every family that lived within many miles of ours was neighbor to us. I knew all the boys in the township, and one of the keenest delights of my boyhood came to me on seeing, as often happened, some neighbor's two-horse wagon well stocked with children, driving up the lane, heading for a day's visit at our house. The hospitality of that day was broad enough to afford shelter and welcome to all who came. To be sure, we had our preferences and our pets, but our latch-string knew nothing of class distinctions, and was out to all alike.

"About a mile east of our house the east-and-west road near which we lived was crossed by a north-and-south road which was a thoroughfare of importance for those days. This popular highway had Wellsville on the Ohio River, and Cleveland on Lake Erie, as its terminal points. Up to that time there were no railroads, but the use of steam for water transport was quite general. Hence to persons going West from points East,

or Southeast, the route via Wellsville and Cleveland offered certain advantages, being a comparatively speedy one. This road was much used by freight wagons; also by passenger and mail coaches which ran on time schedules, and could be expected to call at Greentown at a fixed hour daily.

"Probably most white-haired men can remember those great freight vehicles, called Conestoga wagons. Their boat-shaped beds had high, paneled sides, always painted blue. The rounding top was covered with canvas. Later on, when steam had pushed these wagons out upon the trackless prairies, they got the name of 'Ships of the Desert.' It was with a sensation akin to awe that we boys lined up at the roadside to witness the passage of one of these wagons, drawn by four, and sometimes six large horses equipped in harness having breeching straps as wide as a good-sized machine belt. The driver's place was in a saddle on the near wheel-horse. From this perch he guided his team with his left hand by means of a single line attached to the near lead-horse, supplementing this with shouts of 'Haw!' and 'Gee!'—the horse-language for left and right. Those frontier drivers had sound throats, and they turned on the power, much as engine-drivers do now, by throwing their throttle-valves wide open, when hauling their huge loads over

bad places and up the hills. The driver's crack implement was his 'black-snake' whip with which his right hand was always armed. Its short butt was heavily loaded so that he could knock a horse senseless, if need be. Its long, snaky cracker end had in it an element that, in a crisis, brought out the utmost strain that every muscle in the outfit was capable of.

"The pride of the road, however, was the Concord Stage Coach—always called 'the stage' for short. The heavy, rounding body was painted red and striped with yellow. Steel springs which make modern vehicles so comfortable had not yet been invented. The stage bodies rested, or, rather, rolled, on huge straps; a device that greatly mitigated the shock from obstructions and made riding quite satisfactory. The baggage was carried in a large canvas-covered 'boot' at the rear, while the sacks of mail and smaller parcels went into a smaller 'boot' in front, under the driver's feet. The stage-driver stood several notches higher in our boy-estimate than the Conestoga wagon-driver. His seat at the top front end of the coach was, in fact, considerably higher.

"This driver handled four or six spraying lines, according to the number of his horses, an art that ordinary people did not possess. When he whisked up to the tavern-front he seemed

DESK MADE BY JOHN MILLER FOR HIS OWN HOME

hedged about by a certain majesty. He bossed things about him with imperial stateliness. His 'All aboard!' was not the commonplace shout of a railway conductor. It implied a forward plunge, an expedition into the unknown of which he was sole arbiter and master. His scepter was his whip. This had a long stock, and a longer bulging lash. Most boys have taken their dizzy turn as end-boy in 'crack the whip.' The cracker of the old stage-driver's whip was also its liveliest part. He could wake up the town with it, as by a succession of pistol shots.

"But I must not linger on these things, though to tell the truth, they were among the most interesting of the man-made things that crowd into my earliest recollections. The finely and, to me, strangely dressed people who went back and forth in these stages were a revelation of phases of the great outside world of city and trade that was new to us boys who lived in the forest openings. There were handsomely dressed ladies, and, most curious of all, stylish-looking men with fierce moustaches, a mode that at the time had not yet invaded our 'neck of the woods.' I am not sure, even now, that I can truthfully say that I have entirely overcome my boy repugnance to that French fashion.

"Often and often do I entrap myself, even now, wandering back in reverie to those jaunty

four-in-hand stages, and the slow-trailing freight-wagons with the big watch-dog marching along under the front axle, and the black tar-bucket swinging from the tail of the reach, and as I do so I find myself marveling over the changes in the world of transport that have been brought about within my short lifetime. And then I wonder whether these changes, which have wiped stages and freight-wagons from the face of the country, have made men better and happier.

"Perhaps this involuntary query is a natural one, for, in retracing my life to its beginnings, I have found no better picture of serene content than our old home by the spring. It was the home of peace and plenty. Before every meal the master of the house thanked the Author of all Good. The family altar was in its place, and the daily offering of gratitude and reverence was never omitted. Kindness and strictest probity were in the line-upon-line and precept-upon-precept of our weekday lives, while the Sabbath was hallowed both at the home and by regular attendance at the church which was located in Greentown."

Here the record ends.

CHAPTER III

AN INTERPOLATION

I VENTURE here to interpolate a little story which Lewis Miller surely never heard, and yet which illustrates his point of view in regard to the truly gifted teacher.

A certain man died, leaving his farm, which had been his constant joy and delight. It was, however, too large a part of his estate to continue to operate as before, and the executors could not find a satisfactory purchaser to whom to sell it. Finally one of his daughters undertook to run it for a time. She soon discovered that the American hired man is an institution by himself, remarkably ingenious in finding out how not to do what he is directed to do. It seems, indeed, to be a cumulative talent which may be faint in a single member of the fraternity, but which is sure to be strongly developed if a number of them work together. Accordingly she took counsel with the neighboring farmers, but found that of these only one was ready with sound ad-

vice. He would invariably draw on his own abundant experience and make suggestions which the lady followed with success. This man had a farm no larger than those of his neighbors, but he got bigger results, grew better crops, and, without being close-fisted, he had money out at interest. The other farmers labored under mortgages.

One day when she was at her wits' end to know how to meet a troublesome situation, she rode over to consult this same David Allen Fisher and immediately got from him the hint she needed. Thereupon she exclaimed, "I want to ask you a personal question, Mr. Fisher. How did you manage to train your mind? When I place my problems before other neighbors they give me back the same problems and nothing more. You bring your trained mind to bear on them; you analyze the situation, and give me just the advice I can put to use. I know you did not go to college. How did you manage it?"

"The answer is simple," replied the farmer. "We were five in number, sixteen to eighteen years old, the big boys in the little school up near Warner's Lake. We were very ignorant, and our particular pleasure was to drive away every teacher engaged to instruct us. The last had been a giant; a brute of a fellow, but we got rid of him. The next was a little, weazened Scotch-

man, sixty years old, who spoke with a strong native burr. When school opened he asked the 'five young gentlemen at the back'—meaning us big boys—to stay a few minutes after closing time, as he had a compact to propose. We didn't know what a compact was, but we stayed. He said he knew one wouldn't think it to look at him, but it was a fact that he had a rare gift, one we might never meet again. He could give us an education! To our surprise he seemed human, and his appeal to us to enter into the compact seemed reasonable. Our part of it was merely to help him keep order among the smaller children, and we were to try it out for a fortnight.

"Well, he made good from the first. He was a genius at teaching, and I don't believe any of us ever worked so hard either before or after as we worked for him. Soon, too, we discovered his weakness which was the cause of so great a teacher being stranded at sixty in a little mountain school-house with a bad reputation. It was what he called The Drink. We boys protected him, and sometimes hid him when he came to the settlement in a bad way. This procured us one priceless winter of his teaching. He returned after the summer vacation but there came a day when he managed to escape our vigilance when his condition became such a scandal that he had to be dismissed. He found another school down

near Rensselaerville, but his failing was too much for him, and at Christmas he died of pneumonia after a spree.

"That was our schooling, all I ever had. The other boys went on further. One became Justice of the Court of Appeals of the State of New York, another is a leader at the New York Bar, a third became a prosperous merchant, and the fourth is pastor of the leading Presbyterian church in a large community. I am just a farmer, but I have told you how I came by my mental training—through one winter's schooling with a genius."

The old Scotch schoolmaster lies buried in the Potter's Field of a little cemetery in the Helderberg Mountains, his grave unmarked and his name forgotten. He looms into view at the close of his life of teaching, meets five silly, ignorant country bumpkins without ambition, and touches them with the wand of his genius. He brought out their latent reserves, and he illuminated life for them. How many other men were there who made their mark in the world after coming under his influence? We do not know. But this we do know: that the poor old, misused and scorned schoolmaster had the most precious of gifts, and that he was an unconscious benediction on his day and generation.

From all I can gather of Lewis Miller he knew

of the existence of this quality, this supreme art of teaching, and he spent his days in quest of it. When he discovered it in the Reverend John H. Vincent long before he became a Bishop, he clung to him and would not let him go.

CHAPTER IV

PIONEER DAYS

To reconstruct the boyhood of Lewis Miller we must consider the years from 1820 to 1850, which include the Pioneer Days, and which are generally even less familiar to our generation than the earlier Revolutionary period. Unless we get a picture of these times clearly in our minds it will be hard to think of the boy as he grew up.

When Lewis was born Andrew Jackson was President and Martin Van Buren Secretary of State. John Marshall was Chief Justice, and had served twenty-eight of his term of thirty-five years. Lewis lived through the administrations of Van Buren, William Henry Harrison, Tyler, Polk, Taylor, Filmore, Pierce, Buchanan, Lincoln, Johnson, Grant, Hayes, Garfield, Arthur, Cleveland, Benjamin Harrison, and into that of McKinley who was his devoted friend.

When he was two years of age de Tocqueville

traveled throughout the country and wrote his impressions with the eye of faith in its people. Mrs. Trollope also visited the land at about the same time, and some ten years later Charles Dickens came and made notes of manners and customs that did not form pleasant reading to Americans. British traditions and modes of grace in living had been sloughed off for no better reason than that they were British, especially in the North and West. While a theoretical friendship with France persisted, most of our forebears of those days knew very little of French ways or even of the French language.

All along the canals and navigable rivers, on boats of all sorts, and in the hotels of adjacent towns one might see men dressed in the height of the prevailing fashion, with high hats, ruffled shirts, great collars, full stocks, and bedecked with flashy jewelry, who were gamblers, counterfeiters, and all-'round bad men. These were the black sheep, sometimes of good families, sometimes of inferior clay, and they formed a class by themselves. They lived by their wits, and they preyed on all within their clutches. So offensive did their operations become to good citizens of Vicksburg, Mississippi, during the 1830's, that an order was promulgated, enjoining these scalawags to leave town. When this failed, a Vigilance Committee took the matter in hand, and

hanged half a dozen or so of them to convenient trees and lamp-posts.

Counterfeiting was an easy and profitable industry, because of the number of local banks and their issues of notes. The principal dupes were found among farmers who were having a hard time, and especially those of shifty character who were readily lured by the prospect of acquiring wealth by passing false bills and pot-metal coin. Many were the victims of these so-called get-rich-quick methods who through their own greed were cheated and swindled by every device known to the underworld. Akron for a long time was headquarters for these nefarious operators, because, being the terminus of the Ohio Canal, the many locks along the line extending to Cleveland afforded convenient hiding-places for these sons of darkness when there was any special activity on the part of the police.

Science was in the period of gestation, and was hardly a polite subject for discussion. The colleges would have none of it, the old curriculum being a precious heritage and not to be tampered with.

True, Joseph Henry was at work at Princeton, Robert Hare in Philadelphia and Benjamin Silliman at Yale were teaching chemistry to medical students, but these were rare exceptions. In England Darwin was still a student. The

days of Lavoisier, of Cavendish, and of Franklin, the Eighteenth Century days of philosophical speculation, were past. In a word, science as a subject of popular consideration was unknown.

Life was hard, and so was religion. Dogma ruled and was a constant incitement to quarrel. Everywhere people were quarreling. Those were days of great oratory, and the purpose of oratory is to arouse the emotions. Since it is far easier to arouse the emotion of hate than to inspire the desire to understand and the will to love, the weight of oratory was, as it usually is, of a denunciatory character.

In the late 30's there had sprung up, besides Middlebury, North and South Akron, villages divided by a gore, or strip of unplotted land. So great was the enmity between these two settlements that the churches of various denominations had to be built on the gore, the neutral ground that separated them. There were not worshippers enough in either village to support any denominational church outright, but none the less no churchgoer would have attended services, praised God, and heard the injunction to love his neighbor as himself, in the enemy's territory.

Emerson was a young man and had not then published enough for his liberalizing influence to penetrate the country.

The circuit-riding preacher appeared occa-

sionally, sound in doctrine, and often eloquent according to the standards of the day. He and the schoolmaster were the sole heralds of outside culture in the community.

CHAPTER V

ALONG THE WAY TO MANHOOD

LEWIS MILLER went to school, taught school, and read every book he could lay hands on, thus broadening his education. He was impatient of farming and of the restrictions of a farmer's life. For a change he learned the plasterer's craft from a neighbor named Dard in Greentown.

He was one of a large, industrious family, the second generation of pioneers with traditions of piety and thrift. The father was active, always doing something with his hands. He was a gentle soul, this John Miller, kindly and patient, and his children all loved him. The stepmother, of rather sterner stuff than the father, was vigorous, indefatigable in work, administering her household with order, scrupulous cleanliness and care. She supervised everything, attended to everything, from the spinning and the weaving to the polishing of the copper pots ranged along the shelves. If exacting, however, she was also kind, and she was strictly impartial in the care

and affection she bestowed on her three families, —the Aultman children, those of the Miller-York union, and those she bore John Miller. In return she was beloved by them all with an affection that endured throughout her life, and they cherished her memory.

There is no diary, no day-book or journal, to tell us what fancies came into Lewis Miller's mind in those formative days. Since, however, we know his later convictions and oft-expressed opinions, it is not hard to postulate the direction of his thoughts. We observe that whenever he got a chance to leave the farm he did so. That he taught school is easy to understand, for all his life he was interested in the problems of education. His many years of activity on the school-board of Akron, his long trusteeship of Mt. Union College, and his diligence in its affairs, his many years in Sunday School work, and, greatest of all, the Chautauqua undertaking in which his heart lay, all these demonstrate his passion for education, for the great art of teaching. Had he not fallen in love with Mary Valinda Alexander, or had she refused him, it is a fair guess that he would have devoted his life to pedagogics. But when he had a wife and a prospective family to support, he had to meet the fact that his meagre training did not equip him for any but elementary school-teaching. It was the

Art of Teaching which fascinated and held him beyond all else. A slight change in conditions and opportunity, and he might have ended his days as head of one of the great universities, and even so he might still have been President of Chautauqua. In any event, he would have risen to a position of command in whatever line he followed. We shall frequently have to refer to this absorbing passion of his, not so much for the practice of teaching, as for the underlying art and philosophy, and the technique of teaching.

As a teacher he was a success because he gave the subject to be expounded his earnest study. How to expound it, and, more particularly, the psychology of it,—that was its appeal to him. As a public speaker he was not easy. He was so careful to assemble all his facts that he was likely to be rather prosy, while another with a keener dramatic sense would make the same subject more interesting. In company with others he was the soul of good fellowship, he was one of those men people are bound to like on contact. But when it came to making a speech, his intellectual integrity seemed to play a trick on him; to arouse in him such a responsibility for mathematical precision that the necessary lightness of touch would fail him. He was fully alive to his shortcoming in this respect, and when he addressed young people, as he did almost weekly

in the Sunday School, he would consolidate his message into a few terse sentences to drive the idea home, and then stop.

A story is told of his early days as a schoolmaster, which may not be out of place here, to show how he maintained order. It had to be understood among the pupils that he was master, and his point was to make them grasp this without a preliminary fight. It was the custom in Ohio for school to be kept on Christmas day, the same as on any other, and in this particular place a tradition had grown up that the master should bring a present in the form of candy to celebrate the occasion. To make sure of it the scholars would assemble early on Christmas morning, and lock the door so as to keep teacher out until he promised to provide the wished-for treat. They tried this on Lewis Miller on his first Christmas there as teacher. Now he had the candy for them concealed under his overcoat, but to let them force him to give it up would be contrary to the order he felt incumbent on him to maintain. The door was locked, and the children were perched up in the windows, giggling and defiant.

Teacher did not even show trouble or surprise. He went to the woodshed, got a piece of plank, climbed to the roof of the building, put the plank over the chimney, and then came down and rested. Soon the smoke was too much for the

children who opened the door and came outside, sneezing and coughing and wiping their eyes. Teacher then sent a boy to the roof to remove the plank, went inside undisturbed, opened the windows till the place was aired out, then rang the bell for school to begin. The children got their candy freely, and not by compulsion. Explanation was wholly unnecessary, and they liked their teacher all the more for it. He proved himself. And they understood him better.

What was his objection to farming? Surely not that he was lazy, for that was a fault with which he never could have been charged. His love of the woods, of gardens, and of free places out-of-doors was intense. He always wanted to be in the open country or in the woods. The attitude of his mind as to farming is indicated by the opinions which he expressed later. He saw that the farmer bought at retail, and sold his produce at less than wholesale. The cards were stacked against him except in years of famine elsewhere. He must prepare for a market that does not reveal itself until many months later, and even then it is what is known as a buyer's rather than a seller's market. He does not reach the consumer. He reaches only the middleman who sells at wholesale. To feed and clothe the population of a country should be a profitable enterprise, and it is the farmer who produces the

material for food and clothing. But his share in the proceeds is always a very small fraction of what is expended on these commodities. Lewis Miller saw the farmer producing, and the middleman getting rich; the middlemen, the speculators, the cotton, and woolen, mill owners and the merchants all had the opportunity to make great fortunes, while the farmers spent their lives in trying to make both ends meet.

Lewis Miller was primarily an inventor, he was not a financier, and he did not seem to grasp the broad problems of economics and exchange with the same vision he brought to other human needs. This may be because the subject is rather muddy to the vast majority of us children of men. But he had complete understanding of how seriously at fault the business aspect of farming was, and still is. This was what finally broke down his patience, so that later in life, for want of a better solution, he joined the Greenback party.

He knew that his slender equipment did not fit him for a high-salaried position in teaching. He was ambitious to make a plus sign of his life, and he saw no chance for this if he were to spend his days in the treadmill of the struggle, with no time for thought, at the plough and sowing and reaping, with all his ingenuity spent in the effort to come out even. This factor may also have had its weight with him in choosing, temporarily, the

plasterer's shorter day with its opportunity for study.

And, with all respect be it said, that, once he had given a subject due consideration and reached the best conclusion in his power, according to the light vouchsafed him, he was as firm in his convictions as any Scotchman that ever argued about predestination. A decision with him was a decision, and it was final and binding—unless he could be convinced to the contrary, which was by no means an easy task. Later in life he would sometimes defer his judgment to that of others, even when he still felt that his own point of view was right, and, indeed, when he was right, because later in life we all learn that the world is full of obstinate men, and we have to get along with them.

His manner of speech was gentle, and his nature kindly, but underlying this calm exterior was a temper that, although slowly aroused, could and sometimes did strike hard.

His religion remained fast with him all his life, and it never ceased to be based on firm convictions. This had a marked influence on his growing years, and kept him out of mischief and clear of the bad company of which there was an abundance at hand. But he was not the kind of lad who would forgive another and then run away when that other wanted a fight. He probably

had as many fights to his credit as any boy at school, and clear through his maturity he had plenty of fight in reserve when occasion demanded. Down underneath in his make-up there were lions.

In short, Lewis Miller was a constructive radical. He had no love for mere destruction, but he had very little respect for tradition. He took his religion, especially in his earlier years, with all its crudities of dogma, as a settled thing, because historical research in religion was not available to him in those days, and outside of organized religion there was chaos. But as he went on in life we meet on every hand his utter indifference to tradition.

CHAPTER VI

THE YOUNG INVENTOR AND MARY VALINDA

Of the two Aultman children Lydia was the elder, and she married Joel Dillman, son of Michael Dillman, a progressive farmer living near Greentown. Cornelius Aultman was born March 10th, 1827, and his father, Cornelius the elder, died when his son was an infant. At the age of twenty young Cornelius married the daughter of a Mr. Wise who, with Ephraim Ball, had a small machine shop at Greentown which they carried on together with Louis Acker under the firm name of Ball & Wise. Here Cornelius worked, having learned the wheelwright's trade and now acquiring that of the mechanic. The concern made cultivators and light farming implements.

Obed Hussey of Baltimore had invented a cutting device which consisted of a knife made of triangular pieces of thin steel, sharpened on two sides, and riveted to a bar, which slid backward and forward within a set of wrought-iron fingers. This is the general principle of all hay and grain

cutting devices to this day. Cyrus McCormick developed this or a similar invention, and put the McCormick reapers on the market at about this time.

There has always been a dispute as to who was the real inventor of reaping machines of which the design is a scalloped knife that slides backward and forward within a groove and against projecting fingers. A number of inventors were at work and many designs were patented. Obed Hussey took out his patent for such a sliding knife in 1833, and at about the same time letters patent were granted to Cyrus McCormick. The Hussey patent was renewed, whereas with the McCormick patent renewal was refused, and this explains why later Hussey was able to collect royalties from Dillman & Aultman. It had to do with this cutting device, but without Lewis Miller's subsequent two-wheeled machine with its double-jointed cutting bar and improved transmission of power, the farmer would be still swinging his scythe during the hay harvest. Ephraim Ball was greatly taken with Hussey's invention, and he set about making reapers himself, with Cornelius as his helper. They built at Greentown five machines which were the first reapers made in Ohio, with the exception of a few very crude devices that had been put together by other mechanics opposite Harper's Ferry.

Michael Dillman purchased one of these five machines, and it worked so well with his grain that he resolved to participate in making them, foreseeing, as he did, that there would be an immense demand for this labor-saving device. For the purpose he wanted a competent mechanic to build the machines, and he looked about for a territory as favorable as northern Ohio, but farther toward the west. Eventually he settled on Plainfield, near Joliet, Illinois.

Now Cornelius Aultman and Lewis Miller were within a little over two years of the same age, and they had grown up together. Lewis, as we have seen, had learned the plasterer's trade, an honorable calling but which, unlike that of carpenter or mason, rarely develops into building contracting. And Lewis, as we have also seen, was ambitious. Cornelius, having worked with Ephraim Ball, saw the bigness of making harvesters, and accepted Dillman's invitation to go west, while Lewis probably began to have dreams of invention and saw that here was his chance in accompanying Cornelius. But he was not a mechanic, while Cornelius was. However that did not deter him. Accordingly, early in 1849, Michael Dillman and all his sons and daughters with their families, including Joel and Lydia Aultman his wife, and Cornelius Aultman and Lewis Miller, set out in a prairie-schooner

for Plainfield, Illinois. Without reference to the miles that divided them, Plainfield was a long way from Greentown, Ohio. Whether the trip was overland or by water, by canal and lake, and then by land to Joliet, it took a good while to make it. One of the Dillman boys once made the return journey in a hurry with a light wagon and a team of good roadsters in two weeks, but that was fast driving!

In the spring of '49 they opened up a small shop in Plainfield and made a number of reapers, —a dozen or more. But, one year later, in the spring of 1850, along came Inventor Hussey from the east, and he collected $15 royalties under his patent on each machine they had turned out and sold. Lewis Miller worked in the shop, and by now was mastering the mechanic's trade. After the close of the 1850 harvest, Cornelius Aultman sold his interest in the Plainfield plant and with Lewis Miller returned to Greentown. So the Plainfield factory drops out of the picture, and with the exception of the Dillmans and Lydia we—that is, Cornelius and Lewis—are back in Greentown again. One point should here be noted. During the winter of 1849 Lewis Miller was a diligent student at the Plainfield Academy.

Cornelius was a very able and vigorous young man, and we may be sure he was not letting the grass grow under his feet. He was a fair me-

chanic, but it was in business that he developed unusual ability. He was quick to seize any point of advantage, and as a trader he was remarkably shrewd. Later he addressed himself wholly to business. He was masterful, inclined to dominate in almost any situation, and impatient of opposition.

Now for a short interim we must turn to other matters, for it was in Plainfield that Lewis Miller fell in love. He was working in the establishment of Dillman & Aultman and acquiring the trade of a skilled mechanic when this happened to him.

The lady's name was Mary Valinda Alexander, and she was nineteen years of age, the daughter of Hugh Alexander and his wife Cynthia Mandeville. Cynthia's father was Ira Mandeville who came from Litchfield County, Connecticut, and her mother was Mary Nash of Great Barrington, Massachusetts.

The Alexanders were well-to-do farmers. Hugh Alexander at one time owned a farm in what is now the heart of Chicago. When people began to have foolish notions about the great value of such land he sold out and came to the neighborhood of Joliet. The Alexanders had come originally from Pennsylvania whither one Hugh Alexander had immigrated from Scotland. He had been active in the Revolution. His son

David was Mary Valinda's grandfather. Now David settled, first in Tioga in the County of the same name in Pennsylvania, where he married Margaret Miller, "a lady distinguished for her intelligence and dignity of manner." In the summer of 1822 he was killed by a stroke of lightning, while walking behind a load of hay. The blade was melted from a knife he was carrying in his hand. There is no evidence that Mary Valinda's grandmother, the lady of distinguished intelligence and dignity, was kin to the other Millers, Abraham and John. The Alexander home at Plainfield was a handsome place, and the family a happy one.

It is probable that Cornelius had been in correspondence with Ephraim Ball during his stay in Plainfield, for, on his return to Greentown, he purchased the one-third interest his father-in-law owned in the shop of Ball & Wise, and another third from Lewis Acker. Then he immediately sold a half interest in the whole—that is one-sixth each—to Lewis Miller, who by now was a skilled mechanic, David Fauser, a moulder by trade and a brother-in-law by his marriage to another of the Wise girls, and George Cook, a wagon-maker. So that now Ephraim Ball owned one-third, and the others, Aultman, Miller, Fauser and Cook, one-sixth each.

The concern took the name of Ball, Aultman

& Co. and in the spring of 1851 started to make reapers, paying a royalty to Hussey for his knife-bar and finger-guards. They settled at Greentown, but with the understanding that, as soon as it could be conveniently accomplished, they were to move to a location affording better shipping facilities.

Following this arrangement in September, 1851, they moved to Canton, and in the season of 1852 they made twenty-five machines there. The original capital of the firm was $4,500. In Canton they added Thomas Tonner, an accountant and a good business man, to their force.

Some time afterwards Lewis Miller's father purchased an interest in Ball, Aultman & Co., for his second son Jacob. The Millers had now been settled in Stark County, Ohio, since 1814, a matter of thirty-five years, and John Miller was well-to-do. He had a large farm besides that which he had given Abraham, his eldest son; he also had a small distillery producing whiskey, and he owned and operated a carpenter's and cabinet-maker's shop, all in Greentown.

In the meantime Lewis Miller had taken hold of the manufacturing end of Ball, Aultman & Co., and was planning improvements on their reaping machines. He was also far enough advanced in his career to marry, for he was partner in the little agricultural machinery works,

and the outlook was favorable. Moreover the engagement had lasted long enough, as the following letters will show. It is too bad that more of them were not saved.

PLAINFIELD, WILL CO., ILL.,
Dec. 6, 1850

Dear, Respected Sir,

I received your much wished for letter of the 28th, and was glad to hear from you. We are all enjoying good health at present, and I hope you are under the same blessing. We had some great times since you left us, but I feel lonely without you. I am still going to school and trying to learn. Singing progresses finely, and I am also attending a geography school taught by a Mr. Shilling from Ohio, where I am learning a little. We have heard from John. He is well, but did not say that he was doing much. Mr. Murray came home poor; four days in California when he got sick of the place and left it.

There has been a great wedding since you left: Mr. Evans to Miss Tierney, and the boys gave them a great belling. I could tell you many other interesting things if I thought you could read my writing easily, but it is so poor that I am afraid nobody can read it with pleasure, so I shall not say much more now.

You wished me to speak my mind freely. I

have thought the matter over and over and over and my mind is still the same as before. I have formed some new acquaintances since you left, but I still feel as though I could spend my days most pleasantly with you. I have spoken to Mother about our plan, and she is willing. And I believe that Father will not raise any objection. I do not feel myself worthy of such company as you, and sometimes I fear that you will regret your choice. And yet I do hope that our lives may pass along smoothly together. I shall try to improve myself as much as I can.

I should be pleased to hear from you as often as you will write.

I remain your affectionate Friend,

Mary Alexander

I send my best wishes to your sister and parents, and would be glad to see them—and I would be glad also to hear from you very often.

Greentown, Nov. 30, 1851

Dear and Respected Mary,

I received your welcome letter on the 24th inst., and read it with much pleasure. I was glad to hear that you were of the same opinion, for I had almost come to the conclusion that some other person had stepped into my place, because

I did not hear from you for so long a time after I had written. But I was still living and waiting in hope, and had not looked out for anyone else or made any other connection. You are my choice amongst all the Fair Sex. And yet it puts me to my studies sometimes whether it would be better for us to get married yet or not. I suppose everybody, or most everybody, is troubled with the same thoughts under the same circumstances. I should like to know how you feel on this point. Please do not think from this that I am weary of my engagement with you and want to get out of it! Far from it! But this is my feeling in the matter when I think it over: I always had a notion to go to school more than I can under the present arrangements; and this is all that troubles me in the least. If I only had the education which I always expected, I should be perfectly satisfied, for the matter between you and me is all settled in my mind and there is no trouble about that, provided you will have me,—which I can not doubt at present. I want you to tell me just how you feel in reference to everything in the matter.

I am still in Greentown, and boarding at home since Mr. Aultman moved to Canton. Just now I am upstairs in my room by myself and trying to converse with you, but I would sooner have

you by my side, and would wish so, if it were not a foolish wish. But I am getting away from the subject of what I was going to say.

At present and for the last two weeks there has been no one but me to carry on the shop in Greentown. Ball went East on business, and the rest of the partners have gone to Canton. So I am here all alone to carry on the shop, and it keeps me pretty busy to look after everything, especially as I do not know much about the business. But I expect Ball back every hour. We intend to move to Canton this week if nothing happens, as our shop in Canton is about finished. The cannon is to be fired next Tuesday which will close our business in Greentown.

Now, Mary, if you can, I want you to go to school this winter, which I think is the best thing you can do, provided your parents are willing. The school-room has always been my real home through the winter. I do not know how I shall spend the coming winter, as I intend to work through the season, and thus shall be deprived the privilege of being in school for the first time. But I will try and make the best use I can of my leisure.

I cannot give you such interesting news about the young folks in this place as you had in your letter, for I do not know one young man that

goes to see his lady regularly. It is quite out of Fashion at present.

I must bid you good-bye for a little while, though I hope not for long, because I expect to hear from you a little sooner than I did the other time. I hope we may soon see each other face to face which will close our scribbling to each other. As that day comes closer it seems to shine with pleasure. Indeed I can see you as plain in my mind today as the day I bade you good-bye in the school-house—which I don't suppose you have forgotten yet.

I suppose your parents are looking for a few lines from me pretty soon. I will try and send them next time.

Tell me when it would suit you best for me to come out. It makes but little difference, though about the first of May if that would suit, might be a good time.

Any time you prefer, just say, and we will make the arrangements somehow. When you mail your next letter address it to Canton, Stark Co., Ohio, as I expect to be there soon.

With these few words I will have to close and bid you good-bye. I send all my good wishes with it. I hope you may enjoy good health with all your friends. Remember me, your Friend and Lover

Lewis Miller to Mary V.

Canton, Ohio, Feb. 21, 1852

Dear and Affectionate Parents of One I love,

I suppose you are well aware of the communications which I have with your daughter and of our arrangements. Perhaps I have already gone too far without your consent or asking permission. If I have I am willing to retrace my steps. But I suppose that you are aware of our engagement, and since you did not oppose it I believe that I was not acting contrary to your will.

I feel it my duty to ask your consent to my proposal and hope to receive your consent. Therefore I present this note.

You are not ignorant of my character or standing in society, and since you have had the opportunity to make yourselves thoroughly acquainted with me, I have nothing to say for myself, but to leave it with you to use your judgment.

I would say that while I was with you I formed an attachment to your respected daughter which cannot be easily removed. She is the One with whom I believe I can live happily. And as she seems to think the same of me we have agreed to join ourselves in marriage,—but not without your consent. Therefore I drop these few lines. If you have any objections make them freely. I am willing to receive them. And if you have

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none, please say so, for I want to know just where I stand.

I deem it unnecessary to write any more at present, but merely to ask you for a reply as soon as convenient.

I remain, Yours Sincerely,
Lewis Miller.

Plainfield, March 29, 1852

Dear Lewis,

I received your welcome letter a few days ago and read its contents with pleasure, but I felt a little disappointed when you said you did not know when you would come. I am enjoying good health and hope these few lines may find you enjoying the same great blessing. I am sorry if my not writing sooner, or my writing in my letter before the last put you to so much trouble and has prevented our getting married this Spring. I thought then I had rather wait till Fall, but I thought you might do as you thought best, and I would be satisfied. I am willing to do as you decide, as you know better about your affairs. Now it seems long to wait till Fall, but time flies fast.

If putting off so from time to time should not be the means of our never joining hands in holy

wedlock I would be willing to wait until Spring, but there is great danger in putting off so from one time to another, especially as we are so far apart and never see each other in so long a time, and have no way of conversing but by writing. And I am such a poor hand to compose a letter and so apt to make mistakes that I am afraid there might be a little trouble between us.

Mrs. Dillman sent me word the other day that she expected you here soon, and I was very glad to hear it, for I would like to see you very much. I am like you, I would rather get married in the Spring than any other season of the year, if we could. Now, dear Lewis, I will leave it all to you as you know your own arrangements best. So do as you please, and I will be satisfied.

Lewis my love for you grows ever stronger, and I still feel as though I could spend all my days happily with you.

Well, I have scribbled about myself long enough, and will close my letter by saying it is generally healthy here now. The weather is not very pleasant, business is tolerable lively for this time of year, and quite a number of people are going to California this Spring.

I hope you will excuse all my mistakes and poor writing, and I hope you will write as soon as you possibly can and let me know when you will

be here. So good-bye for the present. Write soon.

Mary V. Alexander to her Beloved Lewis Miller.

This last letter seems to have been effective, for soon afterwards Lewis Miller set out for Plainfield to claim his bride. He proceeded by water, by canal to Cleveland, thence by ship to Chicago and so overland to Joliet and Plainfield. He was now twenty-three years of age, and everything, as he believed, was in readiness, down to the last detail of his wedding garments. But young men in love are reputed to be absent-minded, especially if they are of the intellectual type, rich in imagination, and addicted to dreaming dreams. And sure enough, when Lewis Miller arrived at his destination and unpacked his belongings he found that everything was in the order he expected—save his trousers. For this garment he had purchased the material, but had forgotten to have it made up before leaving home. He therefore took his prospective mother-in-law into his confidence and besought her counsel, and she was equal to the emergency. Tailors were peripatetic, in those days; they came when they got around to it and not before. To have entrusted so intimate a task to the other women of the household would have been indelicate, accordingly Mrs. Alexander and the bride organized a little sew-

LEWIS MILLER AND MARY VALINDA ALEXANDER

From a daguerreotype taken about the time they were married

ing-bee of two, in order that the bridegroom's legs might be properly arrayed for the ceremony. Thereafter Mr. Miller was always slightly sensitive to the mention of wedding-trousers.

The Alexander home was large and comfortable. The great living-room had a huge fireplace at each end. While details of the wedding-feast are lacking we know that it was plentifully ordered, and that the wedding-party was a happy one. Mary Valinda left home, not as Elizabeth Fouse had left Pennsylvania, a generation before, the two-day bride of Abraham Miller the 2nd, but confident in the future and knowing that an acceptable and comfortable, if modest, home of her own, was awaiting her.

It is a fair assumption that Lewis Miller's meeting with Mary Alexander formed the turning-point in his life. Since with their growing attachment she showed herself willing to give her life into his keeping it was his obligation to provide for her in the style to which she was accustomed, to better it indeed, so that she might step up rather than down by marrying him. The plasterer's trade he had already set aside before he met her. Like farming it did not open up to him the prospect of the sort of life he desired for himself with the measure of comfort and elegance he deemed suitable for his wife. For himself he did not mind plain living, provided this included

intellectual opportunity, and he might easily have turned back from the machine-shop to the school, and fitted himself for the higher grades of teaching. But for this lovely girl he wanted the best the world could afford. He now craved wealth, or, at least the chance to acquire it, with distinction into the bargain. The art of teaching never ceased to lure him, and how he gratified this longing his life-work testifies.

A story is told of an old Scotch servant who looked after Professor Tyndall throughout the later years of his life, whose custom it was to rap every morning on his master's door and cry:

"Ar-r-rise, sir; ar-r-rise. 'Tis seven o'clock, and ye have gr-r-reat wor-r-rk to do this day!"

Lewis Miller neither had nor needed a Scotch servant to wake him up, but he had great work to do every day of his existence. In harvest time he would walk behind a reaper in operation, all day long, watching the work of his own machines, and that of his competitors. But throughout his whole life, even through the period of his greatest prosperity, he was always more critically interested in what he himself created than in the work of others. He always sought to keep ahead of the game, but his most frequent slogan was, "Let's see how we can beat ourselves!" Accordingly he did valuable work in invention, though, in the final reckoning, it is probable that he con-

tributed more to the dissemination of knowledge than he did to industry. Other men were at work on improved farming machinery, but the brain of Lewis Miller alone was responsible for the idea which culminated in Chautauqua. Other men were planning improved Sunday School Assemblies, but to Lewis Miller belongs the credit of making the Sunday School Assembly a great disseminator of general culture and enlightenment. The present-day opportunities for self-education and a good part of university extension work in America lead directly back to the Chautauqua movement.

What did he look like at this time? We have no likeness of him as a child or youth. Daguerreotypes were unknown until 1839, and even then they did not reach Greentown, while the local portrait-painter and wandering silhouette-cutter seem to have missed him. But from later portraits we know that he must have been handsome, his features being regular and his eyes unusually large and bright.

"I never knew anyone whose eyes reflected so much light as Mr. Miller's," says his son-in-law Mr. Thomas A. Edison. "And this held to within a year of his death."

Then, in addition to good looks, he had vitality, health, and an amazing fund of energy, coupled with the princely quality of good fellowship. His

capacity for work equaled that of Theodore Roosevelt, and he started out with a better physical constitution to back it.

"He was the nearest approach to a human dynamo of any one I ever knew," said Mr. W. L. Clause, a leading citizen of Pittsburgh who worked for Lewis Miller when he was a young man.

It is said of women in the abstract that they care more for getting things done than they do for philosophizing as to how and why they should be done; that philosophy and dogma are of men, while women accept philosophy and dogma as means to an end rather than as an end in themselves. If this observation be correct, then Lewis Miller had a feminine side to his mind, which was in no sense an indication of weakness, but rather, as he ordered his life, an element of strength. We shall soon see how he worked it out. In the meantime we must note two other endowments in which he was rich: a delightful sense of humor that never left him, that enabled him to "swap yarns" with any good story-teller by the hour at his leisure, and a fund of optimism that was often mistaken for obstinacy. This at times proved expensive to him, while at others it was his leading to success. Coupled with this optimism—indeed, a part of it—was an unusual faith in human nature.

CHAPTER VII

THE BUCKEYE MOWER AND REAPER

We must now return to the little agricultural machine works of Ball, Aultman & Co. In 1854 or '55 the factory burned down, and it seemed as though nothing was left. It is probable that at this time John Miller bought an interest for his son Jacob, and everybody in the firm was called upon to contribute to his uttermost farthing. David Fauser dropped out and went to farming. Cornelius Aultman went to Pittsburgh to buy bar-iron for their machines, but could get no credit until he called on H. Lloyd Son & Co., who were producers of the kind of metal needed and who made generous arrangements with them. This was the beginning of a warm friendship between the Lloyd family on the one hand and Cornelius Aultman and Lewis Miller on the other, a friendship that lasted throughout their lives. From that time forth the firm bought all their wrought-iron from the Lloyds as long as they did not produce it themselves.

Lewis Miller was now both designer and

manager of the works. Aultman looked after the business with Ephraim Ball, while Tonner kept the accounts. As they rebuilt, Miller introduced new designs which were adopted. The great trouble with all mowers and reapers was that the long knife-bar and pitman-rod ran as a single piece from the outside of the swath, clear up to the middle of the machine, right under the pole to which the whiffletrees and the horses were attached. The cutting device was therefore always operated in a position that was slanting instead of horizontal, so that the stubble farthest away from the machine was short, while that next it was long. This was especially bad for grass-mowing, causing much of the hay to be lost. It was also bad to have the grain straw irregular in length, as cut by the reapers.

Machines were generally operated by one driving-wheel, and this caused an irregular draft on the horses where a steady pull was desirable.

Lewis Miller devised a floating cutter-bar. That is, where the knife ended next to the machine a double-hinged joint was provided, so that the whole cutter-bar was free to follow the contour of the ground. That was the first efficient grass-mowing machine. Next to the Hussey knife it was the key invention to the art of mowing and reaping by machinery.

MEDAL GIVEN FOR THE BEST MOWING MACHINE

Awarded at Syracuse in 1857 by the United States Agricultural Society to Ball Aultman & Co. Miller & Aultman Patent

Another device of Lewis Miller's enabled the farmer to raise the cutting-bar horizontally, or at various angles to a vertical position, and then lay it over backwards on the machine, in front of the driver's feet. With this lifting contrivance, if the driver saw a big stone or stump in the way he could lift the knife and pass it over the encumbrance instead of stopping, backing, and making a detour. This, as may readily be seen, proved a great saving of time and wear-and-tear of the machinery.

A much simplified and more direct drive of the knife was also provided by him which operated with greater certainty, and consumed less power than any other mowing or reaping machine.

The machine operated with two wheels instead of one, which made it as simple to transport along any road as an ordinary sulky. The two wheels doubled the driving power, and equalized the draft on the horses.

This, in effect, was the Buckeye Mower and Reaper which was brought out in 1855. It was a tremendous success. The Canton works grew and grew, and all the partners became rich. And in time the Hussey patent expired.

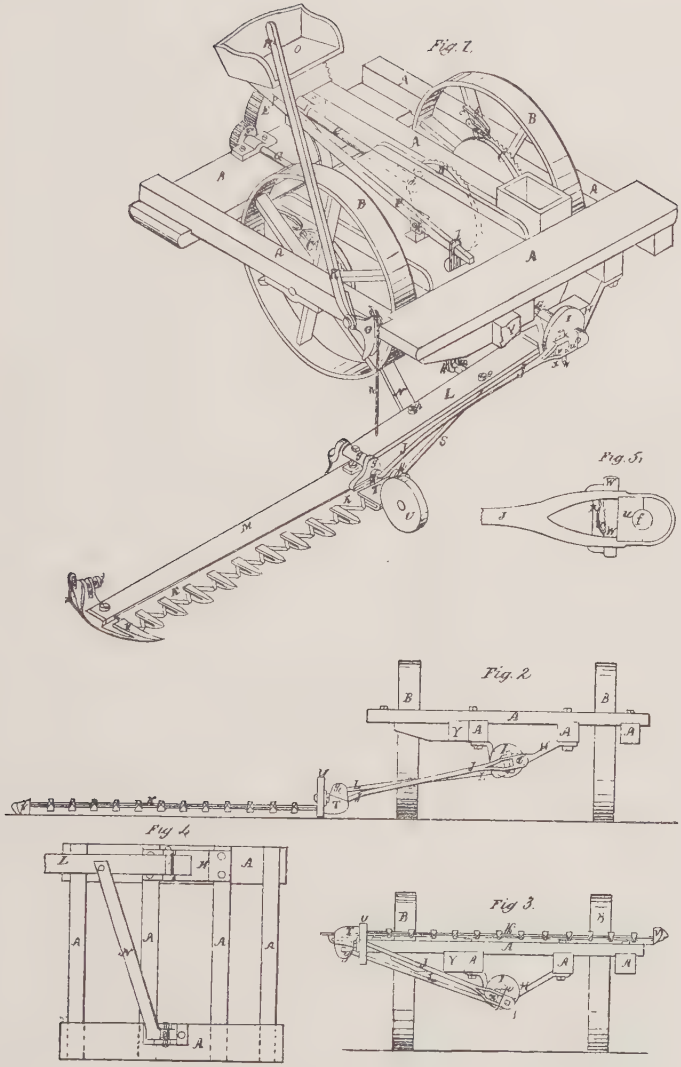
Still another improvement was added by Lewis Miller. All machines for mowing and reaping were so constructed that the cutting device, although at the side of the machine, was beside the

driver. Then, when one of the wheels sank unexpectedly into a hole, or went over a bump, the driver sometimes would be thrown from his seat, right in front of the blades, with terrible and often fatal results. Lewis Miller shifted this cutting-bar forward, so that there was only cut grass or grain on a line with the man at the reins, and if he fell off he fell behind the knives instead of, as theretofore, in front of them. In this respect also he was a pioneer, anticipating the safety precautions of today.

In 1857, at the fair in Syracuse, N. Y., the Buckeye Mower and Reaper was proclaimed first in rank and won the prize over all competitors. But Ephraim Ball did not approve of the new forward-cutting device. At least, so it is reported. He may have had difficulties with Cornelius Aultman who was a forceful character, quick in decisions, and not afraid to take risks. At all events, Ball sold out to his partners in 1858, and set up a competitive organization. This, however, did not last very long.

Ball, Aultman & Co. now became C. Aultman & Co., and in the first season of this firm they made 1500 Buckeye Mowers and Reapers, and 150 threshing-machines.

Transportation to and from Canton was by means of the Pittsburgh, Fort Wayne & Chicago Railroad, and its freight charges were enormous.



DRAWING OF U. S. PATENT #20180, ISSUED TO LEWIS MILLER IN MAY, 1858

This drawing shows the two wheeled drive, the cutter bar in front of the driver, the double hinged joint with floating cutter bar in operative position, and folded back for transportation; the organization being substantially the same as the latest mowers

In those days all freights were carried at special rates, and when competition in transportation was lacking, the roads used to squeeze the shippers; just as shippers used to squeeze the railroads, when they had the chance. There was no Interstate Commerce Commission to regulate things, no standard of rating. This probably worried Cornelius Aultman more than it did the other partners, for he was a born trader.

The concern purchased its lumber chiefly from John R. Buchtel of Akron, twenty-five miles to the north, and on his frequent visits to them Mr. Buchtel would hold up to the partners the superior advantages of Akron with its Erie Railroad connection. The business had now grown so big, far beyond the capacity of the Canton plant, that it was finally resolved to establish a manufacturing concern where the freight rates would be more reasonable.

There was some thought of building in Cleveland. But Akron was nearer Canton, the facilities for obtaining wood were better in Akron, and Mr. Buchtel's argument in regard to the Erie Railroad was a cogent one. There was still another reason for deciding on Akron. The Canton works were to be kept up, and it was necessary to have Lewis Miller in close touch with both establishments. Aside from his invention and improvements that met every difficulty, he was a

born manufacturer. He was remarkably ingenious in factory planning, in arranging machinery, in the organization of factory-practice, and in the control of the flow-sheet. Above all he was valuable on the human side. The men trusted him, for they understood him even as he understood them. They came to him for personal advice, advice about family matters, the buying of houses, problems concerning their children, no less than for direction in regard to the day's work. Mr. Miller was an eight-hour man long before the eight-hour day agitation began, and while he could not introduce it into the works then, he did manage to reduce the day's stint to nine hours, and later on he developed piece-work, so that the men might earn their wages, and still shorten the time spent in the factory. The abuses of the piece-work system against which labor unions have since complained so bitterly had not entered industry in those days. In a word, Miller was a model employer, and his employees worked with him, giving him their best because they knew they got the best he could give them in return.

So in 1863 they built in Akron, the new firm being known as Aultman, Miller & Co., the old firm continuing under the name of C. Aultman & Co. in Canton. Soon both firms were incorporated, the earlier consisting of Cornelius Ault-

man as President, Lewis and Jacob Miller, George Cook and Thomas Tonner, while the incorporators of the Akron establishment were John R. Buchtel, President; George W. Crouse, Secretary; C. H. Wright, Treasurer, and Lewis Miller, Superintendent. To this title Mr. Miller preferred to adhere, even when later he assumed supreme control of all the works.

In time Mr. Tonner died, and his place was taken by H. C. Fogle of Canton, while in Akron Mr. Crouse became President, and Mr. Ira M. Miller, eldest son of Lewis Miller, Secretary.

In 1864 the Canton and Akron works between them produced 8000 Buckeye machines and 500 threshing-machines. Things boomed. The Buckeye mower with its level cutting-bar became an established device, and everyone who made a satisfactory implement of that nature for farmers had to pay royalties to Aultman, Miller & Co. But for reapers there were immediate developments ahead.

CHAPTER VIII

REAPER DEVELOPMENTS

The reaper for grain required a "table" which was a platform attached to the back of the cutting device, so that as the grain fell on it a second man, sitting on the machine, might rake it off, leaving it ready to be bound into sheaves by the workers who followed afoot. It would not do to let the grain get tangled up; the heads had to be kept together for the threshing. So about 1868 J. F. Seiberling of Akron came out with a "dropper" which could be operated by the driver. This consisted in a tetering platform from which, by pulling a lever, the driver could dump the grain as it accumulated, depositing it back of the knives ready to be bound into sheaves. This saved the expense of an extra man on every reaping machine in commission during harvest-time.

It was hot competition and it had to be met, but by 1870 Lewis Miller met it.

His device was the Miller Table Rake. This was an automatic rake, worked by a cam whereby

the prongs swept over the platform, the sides of which were raised. It landed the grain already packed for sheaving, not back of the knives, but around, back of the horses. It reached over and pushed the grain out. In this there were two advantages. The lesser was that it worked automatically, so that the driver did not have to pull a lever. The greater benefit was that the cut grain was delivered back of the horses, and not back of the knives, so that when next the horses came around, they did not step on it.

With the Seiberling Dropper, on the other hand, the horses would trample on the grain, if the binders had not been numerous enough, or spry enough, to keep pace with them, and thus much valuable material was threshed out and lost. The Miller Table Rake provided against this. By sweeping the grain clear around to the left of the horses as they came around again it could lie there untouched until the harvest hands caught up and bound it at their leisure.

In addition to these two advantages—the saving of the extra man on the machine, and the provision against loss by trampling on the grain—Lewis Miller's Table Rake offered still another. This was an arrangement whereby the farmer could remove the table and attach a separate cutter to his machine, so that it now became a mower for hay. This enabled the farmer to dis-

pense with two separate machines for mowing and reaping,—one for grass and the other for grain,—and combine the two in one.

Buckeye sales now jumped further ahead than ever, and the Miller Table Rake superseded the Seiberling Dropper in harvesting.

But a man named Locke invented a wire binder which, when attached to the machine, gathered up the stalks of grain and bound them with wire into a complete sheaf, and then deposited the sheaves all bound beyond the path of the horses as they re-traversed the field. Now, since the purpose of harvesting machinery is to save labor in harvest-time, the significance of this is self-evident. No more did the farmer depend on a gang of men to follow his machine to bind the grain. One man, a pair of horses, and a machine could do it all.

This invention was manufactured by Walter A. Wood & Co., at Hoosick Falls, N. Y., also by D. M. Osborne & Co., at Auburn, N. Y.

Buckeye business had now grown so big that, besides C. Aultman & Co. of Canton and Aultman, Miller & Co. in Akron, another firm, Adriance, Platt & Co. of Poughkeepsie, N. Y., was also making their machines under license. These three firms had sole monopoly of the Miller Table Rake which had proved most profitable to the farmers and was now an established favorite. But

the Locke device offered something new and that had to be met. The concern that saves labor is always the concern that wins out in the end, especially in farming. And in Syracuse, N. Y., there was a man named J. H. Gordon, who had worked out and patented a wire grain-binder on a somewhat different principle from that constructed by Locke, and this patent was purchased and the device developed by the Buckeye people. It was a good stroke of business, particularly when Lewis Miller had brought his own inventive faculty to bear on improving the device. And so all was prosperity and smooth-sailing again—for a while. The Gordon Binder, as developed in the Buckeye works, was the best thing of its kind on the market.

By about 1880 along came D. F. Appleby of Minneapolis who made a call on Aultman, Miller & Co., and it is painful to write what follows: He had an invention to bind grain with twine. He argued that twine was a great improvement over wire, and that his patent was valuable accordingly. Aultman, Miller & Co. had the best wire binder on the market, and sales were good, and the device now offered them was complex. They decided against it, and this proved to be a mistake.

There were two brothers named Marsh of Sycamore, Illinois, who had invented and made

a harvester in which the grain, after being cut on the right side of the machine, was carried over the driving-wheels to the left side into a receptacle where two men, riding on a platform, could bind it into sheaves and throw it off as they went on. The automatic wire-binder had come into vogue, in the meantime, and the Marsh concern was not prospering. Accordingly Mr. William Deering, a wealthy dry-goods merchant of Portland, Me., who had invested in the business, decided to protect his investment by assuming charge of the establishment.

When the Buckeye people, and doubtless others, had refused to buy Mr. Appleby's invention at his price, he returned to Minneapolis and induced some local capitalists to back it. They organized the Minneapolis Harvester Company to develop the invention, producing a reaper similar to that of the Marsh brothers, attached Appleby's automatic twine binder to it, and it worked!

Now came propaganda against wire as a binding agent for grain. When left in the fields it clogs up the plows. It gets into the cultivators. It breaks the teeth of the threshing machines. It gets into straw stacks and cuts the cattle. When they swallow it as likely as not it kills them. Until this time nobody seemed to have thought of these vicious effects of wire as a binder, but now

the bad news spread like wildfire. Whenever a "beef critter" died from cause unknown it was declared that its "innards" must have been cut by a piece of wire in the straw, whether an autopsy corroborated this or not. Wire as a binder got a bad name, and it was impossible to buck up against it.

The late William Deering was one of the ablest men American business has known. He was strictly honest, but nothing got past him. He posted right off to Minneapolis, and bought at seller's price the shop rights of the device, and began to produce immediately. His whole plant with the Marsh machine was ready for the Appleby invention. Neither readjustment nor redesigning would be needed. So the Deering Harvester Company prospered greatly.

Then the Buckeye people and all other leading manufacturers went to Minneapolis and bought shop rights, but at far greater expense than sole rights under the patent would have cost them when first it was offered to them.

Lewis Miller's children remember their father at this time as always fussing with a piece of string, tying it into first one kind of knot, then another, whenever his hands were not otherwise engaged, apparently playing with it. But sometime between '84 and '86 the Buckeye Twine Binder was brought out with unqualified success,

its mechanism being far simpler than other devices for the same purpose.

Competition now grew to be very severe, and each of the great manufacturers sought new minor inventions as "talking points" in making sales, very much as now when this book is written, automobile makers find it necessary to present new models every year. A number of makers featured the fact that their machines were "all steel." Lewis Miller, however, believed that a machine, part steel and part wood, was lighter and better, and he came back with his favorite slogan, to "beat ourselves!" So he invented what was known as his "low-down binder," which delivered the grain in sheaves back of and to the left of the machine, without lifting it over the driving-wheels. It made a lighter and more compact device, and added greatly to the prestige of the Buckeye machines.

Henry Ford once said to one of the daughters of Lewis Miller, "The first job I ever had was setting up your father's low-down binders in the field. I never see one that I do not want to go and pat it. There never was a better machine made."

Some changes had been made in the personnel of the organization. Cornelius Aultman found himself somewhat extended in outside investments; accordingly the two Millers, Lewis and Jacob, bought out his interest in the Akron

works. Later Mr. Aultman retired from active participation in the Canton establishment, and in 1884 he died, leaving a large estate. He was succeeded as President in the Canton works by Jacob Miller until the latter's death in 1889. Then Lewis Miller in turn became President, with his third son Robert Anderson Miller as Superintendent. This made him President of C. Aultman & Co. of Canton while at the same time he was Superintendent of Aultman, Miller & Co. of Akron.

The territory was so divided that the Canton works supplied the South and part of the East, and also the foreign trade. The Akron works provided for the Central and Western States, and grew to be the larger establishment. Adriance, Platt & Co. of Poughkeepsie, N. Y., supplied eastern New York and the New England States.

Somewhere on earth there were Buckeye harvesting machines at work every month in the year.

Here was the business life of Lewis Miller which we have carried along up to 1890 and past. He was a rich man when he went to Akron in 1863, and he became richer as the years went on. But now we shall drop the business side of his career for a while and consider other aspects of his life.

CHAPTER IX

FAMILY LIFE

In 1852 Lewis Miller, being twenty-three years of age, and a junior member of the firm of Ball, Aultman & Co., had married Mary Valinda Alexander, and settled down in Canton, Ohio.

At that time Mary Valinda was twenty-one and very pretty. She was also a very competent young woman; full of fun, not wholly devoid of mischief, able to get things done without undue worrying, and she was blessed with an abundance of common sense.

She was a dainty little thing, the frail member of a pair of twin sisters, Martha Arminda being the other. When she was born she was so weak and tiny that they kept her in cotton-batting for four days without attempting to dress her. Martha was strong, on the other hand, but Martha died when she was but eleven. When Mary Valinda was twelve she contracted rheumatism which kept her abed for a couple of years. Nevertheless she bore eleven children, she brought

them all up, she ruled a great home and she lived to be over eighty.

It was a happy marriage out of which grew an ideal family life. In the beginning, we must remember, she was not the wife of a rich man. The home in Canton to which her husband took her was simple. She did her own housework at first, but as the family increased and her husband's business prospered, she was able to engage Louise Rittesbaugh of Canton to help her. Louise remained closely affiliated with the household until the children were grown up. Of the many problems she was called upon to meet with the Miller boys and girls of assorted characters, and various ages, we shall have something to say when we get to Akron. Sometimes Mary Valinda would be taxed to the limit of her endurance by the family responsibilities that rested on her slender shoulders, in the early days, but fortunately there was always the kindly, willing, and competent Louise to count on. From the small house in Canton they moved to a larger house, built of brick, remaining there until they moved to the other city.

Five children were born to the Millers in Canton, and in Akron six were added to these.

First there was Eva Lucy, a brilliant girl, full of temperament, always a leader in good times among young people. She was very popular and

"wherever Eva is there is always something going on" was frequently said of her. The first great grief the family knew was when this attractive girl, at the age of sixteen, was taken suddenly ill and died.

Jane Eliza came next, the very opposite of Eva in that she was retiring and conventional in disposition. As she grew up she became the family authority on "the proper thing to do," and she made it her office to steer her younger sisters and brothers into all the proprieties of the Victorian era in which she lived. This does not mean that Mrs. Miller ever relinquished her authority as head of the household. But if extraordinary demands were made on their hospitality she did not hesitate to let Jane do some of the hustling.

In 1874 she went abroad and spent a couple of years in visiting Norway, Sweden, Russia, Turkey, Greece, as well as the more familiar countries. She was a keen observer and remembered what she saw and learned. Later on she took another voyage with the Rev. Dr. and Mrs. John H. Vincent and their family, and again she spent some time in Europe with her younger sisters. After a courtship that lasted fifteen years she married Mr. Richard Pratt Marvin, brother-in-law of Dr. B. F. Goodrich who established the rubber business in Akron and with whom he was associated in business.

No children were born to this union. Mrs. Marvin died before her father, of valvular heart-trouble, which for two years had affected her health. She had an excellent mentality, and was very close to her father in the discussion of his plans and hopes. She was also very close to Dr. J. H. Vincent, their frequent visitor at Akron, in considering the many subjects in which the two gentlemen had great interest in common.

The son Ira Mandeville went to Ohio Wesleyan College, and then engaged in business with his father. He was instrumental in establishing the first street-railway system and commercial electric light works in Akron. Two daughters were born to him and his wife, Cornelia Wise Miller.

Edward Burkett Miller attended, first Ohio Wesleyan College, and then Stevens Institute at Hoboken, N. J. He was with his father in the Akron company for many years, and then engaged in real estate business in that city. He married Miss Elizabeth Ann Lewis.

Robert Anderson Miller also went to Ohio Wesleyan College. After a year there he suffered from a serious attack of typhoid fever which forced him to give up his studies. Later he took a course in accounting at business college, then went with John R. Buchtel to the Hocking Valley on behalf of the Akron Iron Company.

Later still he went to the C. Aultman & Co. plant at Canton as assistant to his uncle Jacob who had succeeded Cornelius Aultman as President. When the United States took over Porto Rico President McKinley appointed Mr. Miller Postmaster at Ponce, where he remained until 1911, when he died during a visit to his old home. He married Miss Louise Igoe of Indianapolis who, together with their three children, two sons and a daughter, survive him.

Of Robert Miller it may be said that he took his duties at Ponce at once seriously, intelligently, and with that sense of patriotism that makes for peace and contentment. His influence extended far beyond the post-office, for he was known as a true and valuable friend to the Porto Ricans. In this place he found a wide field for his altruistic ideas, and soon after a cyclone struck the Island, he was instrumental in organizing the Porto Rican Benevolent Society, of which Mrs. Miller was President. From this grew an Industrial School for poor children. Both associations carried out the ideas of training instilled by his father. Fine needlework is the great gift of the native women there, and this the Benevolent Society developed and exploited until it now stands as the third industry of the Island.

Lewis Alexander Miller went for two years to

Mt. Union College. He then took a post in Aultman, Miller & Co.'s Twine Mill, and later joined his brothers Ira and Edward in the real estate business. He married Miss Cotta Smyser of Reidsburgh, Ohio, and with her went to Glendora, Calif., where he now operates and owns an orange grove. They have one son.

These are the Canton-born children. Of those with Akron for their birthplace we have, first:

Mina, who, after attending school in Akron, went to Boston to study music. In that city she met Thomas Alva Edison, the famous inventor, to whom she was married later in Akron. Mr. and Mrs. Edison have a daughter and two sons. They make their home in Orange, N. J.

Mary Emily also went to school in Akron, and then to Wellesley College. Together with her younger sister Grace, and her older sisters Jane and Mina, she traveled extensively in Europe and also studied art in Paris. She married Mr. William Wallace Nichols of New York. They have one child, a daughter.

Grace went to Miss Porter's school at Farmington, Conn., then to Wellesley College where she was graduated. She married Mr. Halbert Kellogg Hitchcock, formerly of Akron, and now of Pittsburgh where they make their home.

John Vincent Miller, named for the Bishop, prepared for college at St. Paul's, Concord,

N. H. He then matriculated at Yale, where he was graduated with his brother Theodore in the class of '97. These two brothers made substantially the same friendships and were members of the same societies. John V. started a course in engineering at Cornell, but enlisted in the navy for the Spanish-American War in which he served until peace was declared. He is now associated with his brother-in-law Mr. Edison at the Edison Works at Orange, N. J. He married Miss Florence S. Nichols of New York, and they have one daughter.

Theodore Westwood studied at St. Paul's, matriculated and graduated at Yale with his brother John. The two were inseparable, and their mother always referred to these, the youngest of her brood, as her "Petty Boys." They were but little more than a year apart in age. Theodore entered the Law School of New York University, but when the Spanish War broke out he joined the Roosevelt Rough Riders, and was killed at the Battle of San Juan Hill. A beautiful tribute to his memory was written by Dr. George E. Vincent and published privately.

Theodore was a young man of extraordinary promise. He inherited his father's energy and initiative, and his mother's gentleness and charm. While only a boy he organized the Chautauqua

THE MEMORIAL GATE AT YALE
Erected, by his classmates, to Theodore Westwood Miller

Rowing Crews that exist to this day. He was a good violinist, a capital amateur actor, and his college career was a distinguished one. He was a member of the College Choir which sang at the regular services in Battell Chapel; went as substitute with the Yale crew to the Henley Regatta; was chosen for the D. K. E. Fraternity and Wolf's Head, was a good student and at the same time very popular with his comrades. The Miller Gate was erected in 1899 by the members of his class to his memory. It joins Battell Chapel and Durfee Hall, and forms the approach from Elm Street to the Yale campus.

CHAPTER X

THE CANTON SUNDAY SCHOOL

In Canton it was, where Lewis Miller's Sunday School work began. A young man brought up in all the rigidity of the Methodist Church that marked the 30's and 40's, who was putting forth his utmost effort to perfect his inventions, might be supposed to have had enough to do, and might have been rather "fed up," as the saying is, with dogma. But these things did not bother Lewis Miller. It was the distaff side of his mind that prevailed in this instance; he saw cleaning up and developing to be done, and he set himself to work at the task, selecting the most practical approach.

In Canton the Methodist church was strong, active, rather emotional in expression, and generally less addicted to theological controversy than other denominations. The Bible was the literal, unexpurgated Word of God, and the

"Source of All Truth." Whatever it set forth was so, and any Pickwickian view of creation or of Joshua commanding the sun to stand still, was not to be tolerated any more than a dispute of the nautical adventures of Jonah. All these were records, at once historically accurate and literally inspired, and there was a clear demarcation between absolute acceptance on the one hand and utter chaos of denial on the other. Lewis Miller chose complete acceptance, and apparently it never bothered him in after life, although his views broadened with advancing years.

He had a wonderful way with children and young people. He approached them as though they were grown up. He maintained his dignity with them and avoided all imitation of childishness that many persons feel bound to assume when in discourse with the young.

Sunday Schools at this time were little more than a generation old. They were attracting men of unusual ability, men who believed them destined to be the key to a better and more enlightened citizenship. They sensed the psychology of teaching religion to children and concluded that if a serene acceptance of Christianity is to endure through life, it is advisable to begin in childhood. The idea was sound, but the methods were crude.

If the Sunday Schools of today do not fulfill

the ideals and ambitions of those masterful men who addressed themselves to the matter with such hearty earnestness in the 60's and 70's, we can hardly attribute the fact to them. Most of them went the way of all flesh many years ago. The normal classes of Lewis Miller and John H. Vincent for the most part have been given up. And doubtless disputes among theologians incident to a changing concept of God, of Creation, of what is essential and what irrelevant or unimportant in matters of faith have had a bearing on it.

At that time the "American Sabbath," as Sunday was called when the day was kept in the orthodox style of the 40's, 50's, 60's and 70's, was hardly conducive to the happiness of childhood. Play of any kind was forbidden, severely forbidden, and the process of teaching Biblical lore to children was severe. It called for unusual ingenuity to render Sunday School so attractive that young people would want to attend it, but this is just what Lewis Miller achieved with signal success.

Of the Sunday School at Canton there is little to tell. No doubt it was much like others at the time he became its superintendent. As a young man in his early twenties he was expected to conform to the traditions of the organization with which he had associated himself. Nevertheless

his analysis of the situation led him to venture certain innovations that were destined to have a marked effect on the Sunday Schools of the country for a considerable time.

He was the first to introduce the graded system, which began under him at Canton. He separated the children into classes according to their respective grades at day school, so that the same lesson might not be puerile to one child and over the head of another in the same class. His purpose was to group pupils according to their approximate mental ages, and then to teach them what they were fitted to assimilate. In other words, he followed the secular schools in grading his Sunday School. This seems so obviously the only sensible arrangement that one wonders it had not always been adopted. None the less it never had been done in Sunday Schools until Lewis Miller did it in Canton.

As is almost invariably the case with Sunday Schools, he had serious difficulty in finding qualified teachers. Accordingly he turned again to the secular schools, and, after great effort, finally succeeded in persuading some of the instructors there to undertake service under him on Sundays. He was not able to command all conditions necessary to make his Sunday School flourish—but somehow he made it flourish all the same. He was original, he was resourceful,

while keeping well within dogmatic bounds. And as his work progressed he developed new ideas for its betterment, ideas which later he was able to put into practice at Akron.

CHAPTER XI

CONDITIONS DURING THE CANTON PERIOD

THE ten years between 1850 and '60 were active, rather quarrelsome times in the United States. The pioneer spirit was still vigorous, and it is the pioneer spirit that makes for progress in every walk of life. Pioneers are leaders, and are worthy of all praise, but with them always goes a horde of the impatient and discontented who may add to the wealth of nations but who do not contribute to the graces of life.

De Tocqueville, a visitor, as we have already noted, had written with faith in the people, and found merit in what he saw. "America," he said, "is the country of the world where the Christian religion has conserved the most power over the souls of men." But the Christian religion was far from catholic. There was a great influx of Irish from their own land which was famine-stricken at the time, and where famine rages education suffers. Many were illiterate from lack of schools or schooling in Ireland. They

clung tenaciously to the Roman Catholic faith, and that, differing in form and ceremony from Protestant worship, seemed all wrong to the Protestants. By 1854 the Know-Nothing Party started. This insisted on native birth and the Protestant faith for citizenship and privilege. The trouble arose in a disagreement between the congregation of a Catholic church in Buffalo and the Bishop of the diocese, over some church property, the contention of the congregation being backed up by the law of New York State. The Pope sent a Nuncio to adjust the difficulty, who was received with ceremony by the President of the United States, and that very act was the cause of riots in Cincinnati, Baltimore and New York!

Then came the question whether or not the Bible was to be read in the public schools. This engendered all sorts of anger and ill-will.

Ignorance prevailed everywhere and on all sides, but in addition to this the foreigners were in very large number illiterate, and illiteracy is bad for politics. Municipal administration declined in quality. Votes were more generally bought and sold, and there was a great deal of rowdyism in all political campaigns. A couple of slogans of the Know-Nothing Party will indicate the general frame of mind: "Put none but Americans on guard to-night!" And, "Of all evils that

threaten us Popery is the worst!" In other words, religious faith was both intense and intolerant. In the aftermath of the World War we observe a revival of just such a condition.

The Temperance question also got into politics. The Maine Liquor Law was passed in 1851, and Massachusetts, Vermont, Connecticut, Rhode Island, and Michigan also enacted prohibitory laws which later were repealed, while in New York Governor Seymour vetoed a like measure. Despite the excitement of the times there was considerable improvement in drinking habits in the fifty years after, say, 1800. Of 1800 Henry Adams wrote, "Almost every American family could show some victim of intemperance among the men." The use of wine at tables was rare, but the drinking of heavy toddies before and after meals was a common practice.

The health of the country was at a low ebb, owing to defective sanitation, lack of general understanding of common hygiene, a diet of too much pork and too many frying-pans.

Sermons were really and truly blue. The theatre was taboo, though negro minstrels were popular. A professor at New York University told Ampère he would lose his job were he to go to the playhouse too frequently. Sunday trains were called "a monstrous violation, not

only of the laws of God, but also of the decencies of human society."

There was a great deal of government corruption. In 1857 three members of the House of Congress resigned their seats to avoid expulsion after being found guilty of corrupt practices.

This was the decade in which there was great extension of railway systems and telegraph lines.

Also it was the time when the accumulation of large fortunes began in the United States.

Lewis Miller had a believing mind. He took Dogma as it was and did not get excited over it. The very affirmations which distress some of us and force others to demand that everyone shall think in prescribed ways, troubled him not at all. To him the one big fact of Christianity was the greatest thing in the world, and he never shared the tendency, wide-spread among the Christians of his day, and not wholly absent even now, to worship and magnify Paul at the expense of Jesus Christ. To Lewis Miller the Christian gospel was all simple, plain, and the royal road to godly living.

The vision of the Kingdom of God on earth was his vision, and to him the way to bring this about was to follow as closely as possible the teachings of Jesus. Others might wrangle over details of belief, but that was not his affair. To teach men and women, beginning in childhood,

to teach them to have sympathy and understanding so that hatred and misunderstandings and vindictiveness and all those conditions of mind and heart that spread misery and evil over the earth, shall be driven out by the great white light of truth as Jesus saw it, that was his chosen work. He adopted the religion of his day, of his people, and apparently it satisfied him. Later in life he refused to be narrowed down to ecclesiastical stupidities, although during the Canton period he was consistently orthodox. But at no time was he afraid of the truth. To him religion was a function of life rather than of death, and he held to this in the face of everyone and everything. His philosophy of religion as a part of life demanded that life be broadened so that understanding may enter in along with religion. Then, as he saw it, dark passions will disappear, and the Kingdom of God will in truth come to pass. He was a primitive Christian living in the Nineteenth Century.

We have already told of the great success of the Buckeye Mower and Reaper, and of the growing firm of C. Aultman & Co. at Canton. Also how in 1863 another factory was started in Akron with Lewis Miller as its Superintendent. Hitherto he had been a junior partner, and Cornelius Aultman seems to have had a dominating personality. Lewis Miller was always a

radical, always a bit on edge over the faulty organization of society, the injustice of the distribution of wealth, and the lack of general opportunities for culture. But there was always organization in his scheme of life: the organization of the church he belonged to, and of the firm to which he belonged, and in these he conformed to all the traditions of his elders or superiors in authority. He could not run the factory according to his own ideas. His notion that all the workers were in a way his partners and that they should have opportunities for leisure and self-culture was well-nigh unique in those days.

One pleasant feature of Canton life must here be noted, and that was his friendship with a rising young lawyer, William McKinley, whose sister Helen was one of the most valued teachers in Lewis Miller's Sunday School. The two, brother and sister, were frequent visitors at the Miller home. In time Mr. McKinley married Miss Ida Saxton, daughter of a Canton patent lawyer with whom Lewis Miller had business relations in connection with his patents. Miss McKinley was a member of the Miller party at the beginning of Chautauqua.

Canton was a small town, and neighbors were generally real neighbors. The place was a friendly one. But Lewis Miller, being the inventor of the Buckeye Mower and Reaper, the

main source of the firm's growing wealth, needed more freedom, less restriction, less surveillance, a more responsible position. He had, so to speak, outgrown Canton. And what he wanted he was to find in Akron. He had a motto that he carried through life from about this time on and he put it into constant use in both work and studies. It was "Observation, elimination, application."

CHAPTER XII

AKRON

Life in Akron was different from life in Canton. Lewis Miller was now, in 1863, thirty-two years old, with a wife and six children, and he was no longer merely a junior partner. In Canton the firm was C. Aultman & Co. Here it was Aultman, Miller & Co., and Mr. Miller was in full charge of the works. Messrs. Buchtel and Crouse looked after the finances and business administration, but the production was controlled by Mr. Miller. Eminent as an inventor, he was growing rich rapidly. The firm could not produce enough Buckeye Mowers and Reapers to meet the demand. Mr. Miller also retained supervision over the Canton works which he had developed and where he was on terms of close relationship with all the men. Therefore, at frequent intervals, winter and summer, he drove from Akron to Canton and back, twenty-four miles each way, on the same day. So long as his father lived—and the old man lived along until

LEWIS MILLER

This photograph was taken about the time he went to Akron

1875—he would stop off at the Greentown house on the return trip where the old gentleman would have a stiff toddy waiting for him. Later, when the Methodist Church became politically active in regard to the drink question, Lewis Miller became a total abstainer, and he used to declare that he might easily have grown too fond of drink had he let himself go.

He had been successful with the Sunday School in Canton, and he had hardly been six months in Akron before we find him installed as Superintendent of the Sunday School attached to the First Methodist Church there, a post he retained to the end of his life.

The whole order of his existence gradually changed in Akron. No longer a junior, either in business or in the councils of the church, he now took his position as a citizen of distinction and a leader in the community. He became also a pioneer in the graces of life in Akron. He bought from the estate of Christopher Parsons Wolcott, Assistant Secretary of War under Lincoln and brother-in-law of Henry M. Stanton, a large house on West Market Street, with about nine acres of land about it. He then began to cultivate flowers and to satisfy his taste for landscape-gardening. Five years later he exchanged this property for some twenty-five acres on a hill in the growing city, completing a

house that was in course of construction on the top. The grounds were laid out under his direction with gravel walks and winding driveways; beautiful shrubbery and exotic trees were planted, large greenhouses built, until Oak Place, as the estate was called, became a landmark beyond the boundaries of Ohio, for its spaciousness, the beauty of its grounds, no less than for its distinguished and kindly hospitality.

Before the family moved to Oak Place Eva, the eldest daughter, died at the age of sixteen. So joyous a spirit was she that, to her parents, life seemed empty without her. It is probable that the presence and the passing of this fountain of cheer and happiness contributed, along with Lewis Miller's enlarged activities, to the gradual relaxation of the stern Methodist doctrine which had marked the Canton days. With the growth of his greater experiences and his more extended vision of the human comedy it is evident that he recognized the futility of those substitutes for righteousness that consist in sour protests against the joys of living. To the end of his days Lewis Miller remained a good churchman, "As good a Methodist as I can be," in his own words, but he neither cared for nor encouraged the repressive and mind-crippling requirements of the intense dogmatists. He grew to be a man of the world, a national figure, and for his day very

"OAK PLACE"
The Miller home at Akron

rich; he loved good horse-flesh, and while he did not participate in racing, he did not care to let anybody pass him on the road. He was as fond of play as a child, and he liked sports, but rather in the fashion of a Christian gentleman than as one who devotes himself to sports.

Wealth is a comedy impresario. If we are churchmen wealth is apt to make us smug. With rare exceptions it makes us regard tradition as a fetish, and it arouses our conservatism. As a source of vanity it has no equal. But with Lewis Miller the effect of wealth was the very opposite of all this. Nobody could call him smug. The more wealth he acquired the more radical did he become, and the less reverent of tradition. Instead of growing lazy wealth spurred him on to more intense activity, and it whipped his inventive ingenuity constantly into new directions. As a young man in Canton, aside from developing the mechanical art of mowing and reaping, he had been content to follow the beaten paths, but in Akron, where he could speak with authority, he was not willing to be a follower. He had a profound sense of the responsibilities of wealth, but this was not a manifestation of vanity. An employer who wins and keeps, not only the respect, but also the affection, of the thousands of men who work under him, can hardly be suffering from vanity.

He was an enthusiastic believer in the eight-hour day. Had he attempted to put it into force in the Buckeye works he would have had trouble with the banks, because other manufacturers retained the ten-hour standard, and any reduction in a single factory would have caused an upheaval. But he worked for his men's advancement in other ways. He encouraged them to buy land so as to become real estate owners, both in Canton and in Akron.

At the house on the hill true hospitality reigned. It was Mr. Miller's habit to bring someone home to dinner nearly every day, and it might be two or three instead of one. The guest might be someone from the works, a member of the sales force, a visiting celebrity, or a neighbor from down-town when things had to be talked over. Mrs. Miller always prepared for somebody extra at mealtimes. Nor was Sunday an exception to the rule. Then there were friends who stayed with them. The children, too, might at any time bring home their comrades, sure of a welcome for them at the long table. But at times even the long table was found to have its limits. When Father brought too many guests some of the children had to wait.

A good picture of the family life at Oak Place is given in a letter to her children, Robert, Jr., Rachel Alice and Lewis, from their mother Mrs.

Robert Anderson Miller. It shows the spirit of fun and the inventiveness of Lewis Miller. Next to his wife his daughter Jane was his constant companion. At this time she was twenty-six and a stern upholder of social conventions. For the younger children, therefore, her notions of the proprieties were apt to be severe. How her father turned two young lady paragons of conventional behavior, two "real young ladies," into tomboys for the benefit of these younger ones is illuminating. Lewis Miller was a stickler for fair play.

CHAPTER XIII

LETTER FROM MRS. ROBERT ANDERSON MILLER TO HER CHILDREN

My dear Children—

Robert, Jr., Rachel and Lewis:

The thought has been presented to me that you would be interested in hearing of my very early acquaintance with the home of your dear grandfather Lewis Miller. It was in 1881 when your Aunt Jane, afterward Mrs. Richard Marvin, invited me and my friend Mary Elder, later Mrs. Blackledge, to visit at her home, Oak Place, Akron. Your Aunt Mina [now Mrs. Thomas A. Edison—Ed.], had been entertaining two girl friends whose conduct Jane deemed rather unseemly, so she announced she would have two visitors who would demonstrate how *real young ladies* behave. The family accordingly were primed for our coming—and the very first night we innocent victims were drawn into a pillow-fight in the spacious hall, the game being insti-

THE LIBRARY AT OAK PLACE

This was where Lewis Miller worked out many of his ideas on education

gated by your grandfather. It was evidently a well-laid plan, for no sooner had he thrown one pillow than the hall seemed to teem with pillows, and we, Mary and I, naturally thinking this the way of family life there, entered into the game with zest, so that our young hostess left us, crest-fallen. This was a source of great amusement to your grandfather, and after I became one of the family it was one of his favorite stories. For, I assure you, that pillow-fight was but the beginning of ways that spoiled the promised demonstration of the superiority of conduct of the two "Real Young Ladies" over that of the guests who had preceded them.

Dear Oak Place! There never could be a lovelier house. Its spacious halls, drawing and dining rooms, library and living-room, all were most attractive, combining comfort with luxury.

I cannot picture a more delightful sight than to arrive in winter at the Akron station where the grand old sleigh would be waiting with its handsome horses nodding their plumed heads as though to give us welcome. How one enjoyed being tucked in under the luxurious robes and being driven along with a gay jingling of sleigh-bells to the door where the warmest welcome awaited the arrivals and the happiest, merriest Christmas gaiety was going on!

After that first delightful visit to Oak Place

we went to Chautauqua, your grandfather's pet. I can see his delight and pride in our enjoyment of this wonderful place. You never can overestimate the great good he accomplished in founding Chautauqua. It was truly a vision realized as few visions are. Your grandfather's desire was always to advance and help his fellow-men, and when one realizes that "Chautauqua" is a world synonym for "education," that dictionaries use it to signify education, then one sees the proof of his wonderful achievement.

Your grandfather had a delightful little yacht, the *Olivia,* carrying about forty passengers. The blowing of its whistle was a general invitation, and the gay young crowd that boarded it must often have sorely tried the patience of pilot and engineer. On the last trip of that memorable summer we trespassed on the wee sma' hours. On our return to the cottage we found your grandfather suffering with rheumatism, so your Aunt Mina rubbed him with St. Jacob's oil, the cure-all of that day, while the rest of us sought our downy couches. And, so soundly did we sleep, we failed to waken in time to have the Miller cottage opened for Recognition Day. And the Miller cottage was the meeting-place for the dignitaries to form for the Parade!

Meanwhile my family used to read carefully in the papers all the news about Chautauqua, so

SNAPSHOT OF LEWIS MILLER WITH HIS SONS

as to be in touch with me on my return. Fancy their amazement on learning that my holiday had been spent in the pursuit of pleasure instead of learning!

I often think how patient your grandfather and grandmother were. The latter was a wonderful factor in the home. She ruled with a hand that, while gentle and loving, was forceful, and with an ever-watchful care without which the household machinery could not have run as smoothly as it invariably did.

Six years after this visit, in 1887, I married your father. Twelve of the Miller family came to Indianapolis for the wedding: your grandparents, your Uncles Ira, Edward, Lewis, John and Theodore, and your Aunts Cora, Mary and Grace. It was then I realized to the full your grandfather's generosity. He gave us a lovely home for our wedding-gift. Indeed it was the pleasure of both your grandparents to shower us with gifts.

How proud he was of his greenhouses that were filled with the choicest plants! I recall his delight in his Crotons, that beautifully marked, leafy, exotic plant. Little did I dream when admiring them that later my home would be among them in their native soil. Then there were Philodendrons, and later your father cultivated Philodendrons in Porto Rico in remem-

brance of those in his father's greenhouse at Akron.

Our first home was in Canton, and every week gorgeous flowers from Oak Place would come to brighten it.

Visits between the two homes were frequent. The Christmas festivities at Akron were memorable. It was at one of these that Rachel Alice grew so frightened at her grandfather's impersonation of Santa Claus coming from the chimney that we had to take her from the room to soothe her. As I recall it, our lives seem to have been passed in trips to Akron and Chautauqua where all our summers were spent. One week-end when your father and grandfather came there, Robert, Jr., who had gone to meet them, called as they passed through the gate at the pier, "All aboard for Heaven!" How that did delight your grandfather! But indeed it was Heaven for us all. We took Junior and Rachel Alice there as babies, stopping at the Athenæum, until they became so delirious with excitement that we had to move to the far north end of the grounds. It was a great pleasure to us when your grandfather would come out to talk matters over with your father in this peaceful retreat.

It was in our tent there, on a Sunday afternoon, that Lewis was christened. Your grandfather proudly held his namesake in his arms

while Bishop Vincent performed the ceremony. Bishop Goodsall said prayers, and your Aunts Mina and Georgia, and your Uncles John and Theodore were godmothers and fathers respectively.

It was to this tent your grandfather came to seek refuge from the crowd, staggering under the blow—the loss of his youngest son—when your Uncle Theodore was killed at San Juan in the Spanish-American war.

President McKinley was an old friend of your grandfather, who was one of his most loyal supporters. He offered your father a position in Porto Rico when this became a possession of the United States. When we were leaving for our new home your dear grandfather came to bid us good-bye. It was but a few months later that he passed away. And then we fully realized what a monument of strength he had been to us all—full of courage—a man of wonderful vision whose aim in life was to uplift his fellow-men, and a blessing to every member of his family. What more could one ask?

That, my dear children, is my memory of your Grandfather Lewis Miller!

CHAPTER XIV

FATHER, MOTHER, AND CHILDREN

Children came along in Akron as they had in Canton, and Louise Rittesbaugh had her hands full. When they came to Akron the family had their first horse, Tom, and a two-seated surrey, the steps of which were protected by mud-guards which provided standing-room. When quiet was prescribed for the mother of the house Louise would take Tom and the surrey with as many children as this would hold, and then some more, to visit Grandmother Miller at Greentown.

The old lady retained her fondness for children and her house afforded them the warmest welcome. She was an expert at making pies and cakes, and she cut big slices. Her mince pies, which in winter were left stacked on shelves in the wood shed to freeze, were said to have a gustatory merit which cannot be obtained in these degenerate days.

Once Louise took the children out in a row-

FAMILY GROUP ON THE LAWN AT OAK PLACE ABOUT 1890

Children from upper left: Ina Mandeville, Lewis Alexander, Mrs. Thomas Alva Edison, Theodore Westwood, Mrs. Wm. Wallace Nichols, Mrs. Richard Pratt Marvin. Mrs. Halbert Kellogg Hitchcock, Edward Burkett, Robert Anderson, John Vincent.

boat fishing, under some willow-trees that overhung the river. The boys, being boys, were naturally naughty and rocked the boat, which for good and sufficient reason frightened Louise. So, standing up, she grasped the branches of the willow for support, clinching them with a safe "holt" under her arms. A couple of pulls with the oars left her hanging there with her feet and legs free for—we can't say gesticulation, so let's use a German expression, and call it winking with her feet, while the boat shot out to midstream. A mean trick! But when Louise had expostulated sufficiently they brought the boat back so that with "the eyes in her toes" she found safety again. Why do boys persevere in naughtiness throughout all generations?

Mary Valinda was a quiet person, but potential. Like her husband she was extremely hospitable. But, unlike him, she did not show the intensity that marked his work and play.

An unexpected visitor would be sure to find an abundance of flowers, an immaculate house, and, in winter, a roaring fire. Nothing was neglected; everything was always in order. If the guest had had a long journey he would find a cup of coffee, the best coffee he had ever tasted, in readiness to refresh him.

Mr. and Mrs. Miller slept on the main floor, and in order to go upstairs one had to pass their

room. The watchful mother knew everything that went on in the house. When the last of the boys or young men came in at night he would be sure to hear her say, "Theodore, Johnnie, Lewis, Robert, Eddie—all in. Ira, you're the last. Lock the door and put out the light. Good-night, son!"

Oak Place was a busy household. Breakfast was served at seven, and all were expected to be present. It was the official beginning of the day. As time wore on the routine of family morning prayers was omitted at Akron. This illustrates Mr. Miller's independence of character. The practice was frequently urged in evangelical sermons at the time, and he was a good churchman. Also he believed that religion belonged as much to week-days as to Sunday, but hasty, unprepared or unmeaning oblations did not appeal to him.

A notable characteristic of his in handling affairs was that, while always loaded to capacity with things to do and decisions to make, he could always find time to discuss anything that seemed of immediate importance. For instance, if when he was about to leave for the factory, one of his daughters happened to be practicing at the piano, he would often delay his departure for half-an-hour or more, in order to stand beside her and work out what seemed to him the proper phras-

ing of the composition. He was very fond of music.

He dressed well, but avoided anything that might seem showy in attire. All his life he wanted a gold-headed cane, but was a little shy about sporting one. When he reached the age of fifty-five his children presented him with one, but when he had it he thought it "made him look too old." In fact, he was slightly sensitive about his age. Even as he lay on his death-bed, a few months before he reached the age of seventy, the attending physician asked the daughter who was with him at the time, how old he was. "Seventy," she answered. But her father who seemed in a deep stupor, opened his eyes and, with just a glimmer of a twinkle, corrected her. "Sixty-nine," he said, and closed his eyes again.

Once in the spring of 1886 or '87, Mr. and Mrs. Edison had as guests at their home at Fort Myers, Florida, Mr. Miller, Mr. and Mrs. Gilliland and others, and the party was about to return north. They had heard a great deal about a certain Bartow Spring and the curative properties of its waters, so they decided to stop off and visit it. The spring proved to be a lively, bubbling pond, with a spring-house reached by a causeway in the middle. The party started to explore the spring-house, with the exception of Mr. Edison who, after a keen look at the frail

platform surrounding it, said he was not feeling well and that he thought he'd better remain on shore. When the explorers were mid-way over the platform, it gave way and straightway they found themselves in the bubbling waters. That is, all except the man who was not feeling very well and so remained on shore. Now, the pond was no bottomless pit; in fact it was so shoal that to wade ashore was easy, and all did so as soon as they discovered how near to the top the bottom was. Soon they reached a near-by hotel where they could go to bed while their clothing was being dried. When they arrived at Washington they found the newspapers out with scare-heads: "Edison Party Nearly Drowned." Mr. Miller had the episode illustrated when he returned to Akron, and sent photographs of the drawing to his fellow-adventurers. We see in the picture the men all engaged in the work of rescue under the caption "Women and Children First," with the beard of Lewis Miller in the foreground and the familiar figure of Thomas A. Edison paddling out, also to the rescue.

A DRAWING DESIGNED BY LEWIS MILLER AND SENT BY HIM TO THE PARTICIPANTS OF THE BARTOW SPRING EPISODE, "WOMEN AND CHILDREN FIRST"

CHAPTER XV

THE AKRON SCHOOL BOARD

For a number of years, beginning in 1869, Mr. Miller was a member of the Akron Board of Education. He served several terms as its President, and was always diligent in its councils. One of the public schools built since his time bears his name, The Lewis Miller School. Two of his educational activities stand out with distinction. One came about when his youngest sons, John and Theodore, were learning to read. In going over the work with them he observed that they learned more rapidly if they first looked at and studied the word as a whole, before learning how it was spelled. The idea was original with him, whether others started it independently or not. His theory was that it is rather the association of the letters in the order they occur than the individual characters, which forms the mental picture, and that the child remembers better when the eye has been appealed to before the ear. For instance, "dog" as a whole should be

presented to the child before separating it into d-o-g. Spelling, as being the harder task, he held, should come later. And, after all, is not spelling a Presbyterian art which we are foreordained either to know or not to know?

Mr. Miller's method was tried out successfully in many of the Akron primary schools, and since that time it has come into general vogue.

The second innovation was in reference to a school building, plans for which he worked out with Mr. Jacob B. Snyder, an architect of Akron. This was the Perkins School, which, however, has been so enlarged that the original ideas are lost. It consisted of a hexagonal centre with three wings, extended out on alternate sides, so as to separate the classrooms from one another while affording each a maximum of light and air. Although the plan proved too costly for schools it has been modified and adopted for hospitals.

Mr. Miller never set up to be an architect, none the less many buildings were put up according to his designs, both in Akron and at Chautauqua. That is, he would present the idea, and the architect would follow this up. Then, when the building was completed, he would congratulate both architect and builder. It would be hard to find a man less jealous of praise, or even of acknowledgment. As soon as a thing

was complete and in operation he would forget all about his own part in bringing it about and address himself to the next improvement to be planned.

To his credit be it recorded that the meeting-rooms and halls built according to his designs; the Akron Sunday School, the great Amphitheatre and the Hall of Philosophy at Chautauqua, afford perfect acoustics. The same was true of the big Methodist Church at Akron in which the architect followed designs of Lewis Miller's. This church, until it burned down, was used as a municipal auditorium for suitable gatherings such as concerts and lectures.

CHAPTER XVI

GREENBACKS

We have insisted that Lewis Miller was a radical in his point of view. We think that what follows will sustain our contention.

We talk about the Greenback craze and smile and shake our heads and remark how easy it must have been to fool people,—just as though everything were settled and we knew it all. We stand by the gold basis for currency, as though this were something fixed and permanent, almost an article of economic religion, the while we forget that it is only the fortuitous scarcity of gold that causes us to accept it as the standard for money. Even so it is a fiction, for if every payment were made in gold there would not be enough of it to go 'round. And if some amazing new deposit were discovered which would make gold cheap, or if the present sources of the metal were to give out so as to render it too scarce, we should have to find some other basis for our system.

In 1780 it required forty dollars of paper

money to buy one dollar in specie, and specie means coin of gold, silver, copper, or other metal. In the West, from the days of Andrew Jackson, there wasn't any reliable money. Fractional currency was the only coin in circulation; the rest was all bank-notes—and what kind of bank-notes! There were wild-cat banks that issued notes and then failed, after which these notes would pass from hand to hand as real money until someone recognized them as worthless. They were easily counterfeited, also. In the 30's and 40's barter was the principal medium of exchange, and barter is not only hard on the poor man; it will speedily make a poor man of anyone who is not a shrewd trader.

Coming down to the time of the Civil War, the government needed money, and under the Act of Congress of March 3, 1862, the printing-presses were set in motion, and 150,000,000 unconvertible paper dollars were printed and issued. On July 3rd of the same year, and on March 3, 1863, similar sums were authorized and issued, which made $450,000,000 outstanding. These were carefully engraved certificates, hard to counterfeit, and were printed in green ink on the backs, whence the name. With such rapid accessions to the outstanding currency, the value of the greenback dollar soon dropped to 35 cents. To meet this situation it was pro-

posed to forbid all local banks to issue paper money, and to make greenbacks legal tender for all debts, excepting for the repayment of bonds, which, according to prior stipulation, were to be paid in coin. Then, when greenbacks continued to decline, a law was passed retiring 10,000,000 of them immediately, and 4,000,000 each month thereafter. This law, however, was repealed in 1868, which left $300,000,000 outstanding.

Specie payment was not resumed until January 1, 1879.

For a considerable time it looked as if there were no stable money in sight except greenbacks. Gold and silver were not in circulation, and of all currency known in the West, greenbacks were the best. They might fluctuate in value, but they were well-nigh impossible to counterfeit, and they did not lose their value when one bank or another failed. They were just as good in one State as another.

But there was a deeper impulse back of the greenback excitement. It began as such after the panic of 1873, but its principle dates back to the 40's, to Karl Marx, Edward Kellogg, author of "Labor and Other Capital"; to Proudhon and his "What is Property?," and to Louis Blanc, author of "L'Organisation du Travail." It was a feature of the great movement which broke away from the 18th century idea of the

sanctity of property, and verged over toward the idea of the sanctity of mankind. Socialism was another of the large number of impulses, sequelæ of these ebullitions rather than revolutions, which marked 1848.

The doctrine of the Greenback Party was one of universal suffrage of wage-earner and farmer. Its purpose was to take away from bankers and middlemen their control over government and credit, and thereby to furnish capital and credit through government aid, to the producers of goods and wares.

The platform of the party demanded the abolition of the national banking system, and urged a "true national currency" based on the wealth of the nation which should replace all other paper money. This new money, which should also be paper, should be full legal tender, and "convertible" at the pleasure of the holder into bonds bearing 3% interest—the bonds likewise to be convertible into lawful money again at the option of the holder.

According to another eminent authority, the purpose was "to obviate the necessity of corporation credit devices, store orders, shinplasters and promises to pay, all of which were the outgrowth of insufficient money (sic!), and which enable the moneyed man and dealers in credit to absorb the larger portion of the profits of labor."

To overcome these evils, which, down to the present time, continue to give trouble, through the medium of the government by means of a currency system, is not exactly Marxian Socialism, but is close akin to it. The method proposed might work if we had economic angels to govern us, and if the producers were invariably creators, which is also a Marxian assumption. What seems to happen is that whenever a government issues paper money on its own credit without something more tangible than this as a basis, it prints so much that its paper soon ceases to be money. Whether the system can be made to work or not we cannot say; we can say, however, that so far it has always failed. The doctrine probably expects too much of human nature. The Federal Reserve Bank in its control of credits is now partially doing what these men wanted done. The followers of the Greenback theory may have been defective in applied economics, and they surely were defective in psychology, but they were gloriously right in the end they sought to attain. It is also worth while to note that they recognized the distinction between wealth and current funds which the soap-box economists whom we send to legislate for us today are incapable of grasping. The somewhat naïve distinction between greenbacks and bonds and the automatic adjustment that was supposed

to follow their interchangeability, may have been defective guessing. Very probably it was. But it surely was not so foolish as the present-day denial of any difference between cash and investments which qualifies many of our tax laws.

There were eminent men among the Greenbackers; men thoughtful and sincere, such as Peter Cooper of New York, General John B. Gordon of Georgia, W. D. Kelley and Thaddeus Stevens of Pennsylvania, E. P. Allis of Milwaukee, J. B. Weaver of Iowa, and many of the same standing. Senator Pendleton of Ohio, the father of Civil Service Reform, was disposed to it favorably, and John Sherman was strongly influenced by the movement. Wendell Phillips of Massachusetts represented its more emotional followers, while General Butler of the same State represented—General Butler, in advocating it.

Lewis Miller was an ardent follower of the cause so long as it lasted as a cause. He ran for Congress on the Greenback ticket, but was beaten. His work was production, not finance. He was not an economist, but he had a keen sense that the order of things was not right. He saw the awful tragedy of human waste, and this seemed to him the means at hand to mitigate it. In the light of the experience and the *mores* of to-day it is hard to follow the reasonings of

those who supported the Greenback movement, and yet these supporters seem to have been more alive to their obligations as citizens than the present generation. Lewis Miller was never satisfied with the share the farmers received for what they did to feed and clothe the people. The problem is as urgent now as it was then. The Greenbackers may have labored in error, but we have not yet found a satisfactory solution of the problem.

CHAPTER XVII

BUSINESS CONTINUES TO BE PROSPEROUS

THE history of C. Aultman & Co., and of Aultman, Miller & Co., which is the history of the Buckeye Mowers and Reapers, as already given, covers the ground up to the early nineties of the past century. We shall therefore continue to address ourselves to the other activities of Lewis Miller.

With his partners and others he organized the Akron Iron Company which produced iron for agricultural machinery. He became interested in local developments; he was a considerable real estate owner in the home city. Also with his partners and his brother Jacob he invested in a small safe and lock works that operated from 1869 to 1871, at Westfield, N. Y., near Lake Chautauqua. The fact of the location of this plant, wholly aside from business, was pregnant with consequences.

CHAPTER XVIII

MT. UNION COLLEGE

In 1846 an undergraduate student at Allegheny College by the name of Orville Nelson Hartshorn, set up a select school in an old carding mill in the village of Mt. Union, now a part of the city of Alliance, Ohio. He began with six pupils. Somehow, between times, he managed to complete his course at Allegheny, the while his private venture grew so that by 1849 he called it The Mt. Union Seminary. Nine years later the institution received a charter from the State as Mt. Union College, and Mr., later Dr. Hartshorn, became its first president. Now he was a Methodist, and the college, while "free from sectarian bias," was and always has been frankly denominational. In its undergraduate curriculum there are still several obligatory courses in Bible study.

The friendship between Dr. Hartshorn and Mr. Miller was of long standing, and in 1865 the latter joined the Board of Trustees at his friend's

MILLER HALL, AT MOUNT UNION COLLEGE, ERECTED IN 1866 BY LEWIS MILLER AND HIS TWO BROTHERS CORNELIUS AULTMAN AND JACOB MILLER

Lewis Miller was President of the College Board of Trustees from 1868 to his death. Under his influence and direction the college became the pioneer in the "fourth term" and the "summer term"

urgent invitation. In 1867 he became Vice-President, and in 1868 President of the Board, a post he occupied until his death thirty-one years later. Mr. Miller was very active in this connection, frequently addressing the students, especially in later years. In 1866 the men's dormitory was erected at a cost of $75,000, entirely at the expense of Mr. Miller and his two brothers, each contributing $25,000, and it was named Miller Hall. He induced these two—Cornelius Aultman and Jacob Miller—to join him in other benefactions to the college, also to serve on the Board; and in 1874, when funds ran low, these same gentlemen saved the institution. About 1880 it was again burdened with debt, and its professors who were receiving such magnificent emoluments as $700 a year, announced their willingness to squeeze through on $500, contributing the balance to the fund. Accordingly the citizens of Alliance, though at the time far from affluent, were called on by the college authorities to help, and they responded according to their ability. And again the three brothers, the two Millers and Cornelius Aultman, came to the rescue and again the institution was saved.

Coming on the Board of Trustees only seven years after the college was chartered, and remaining actively in its councils, Mr. Miller's educational theories undoubtedly made a strong

impression on the policies of the institution. It is interesting to correlate these theories with some of the measures adopted by Mt. Union.

The following note was obtained from Dr. Joseph L. Shunk, now of Wilmot, Ohio, sometime Vice-President of the college, and for forty-four years instructor and professor of Greek there. He tells us:

Mt. Union was the first college in America to give full educational rights and privileges to women on equal footing with men. Oberlin admitted women at an earlier date, but with certain restrictions as to graduation.

Mt. Union was among the first colleges in America to provide elective courses. That is, to provide curricula with elective courses in them. Dr. Eliot's introduction of the system at Harvard came later.

Mt. Union was the first to break away from the three-term plan in favor of the four-term. This was later adopted by the Chicago University. It enables a student to complete his twelve terms in three years, or to work one term and study during the other three, annually, thus completing the course in four years. This four-term system has developed into the summer session of many colleges and universities, but the summer privileges began with Mt. Union. It enabled the farmers' sons to work in the fields

during harvest-time, and it enabled district school-teachers to pursue their studies during their free months. This plan which allowed students to omit college when their living depended on it and yet keep up with their classes in full, was an innovation, and it was proposed to the Board by Mr. Miller at a meeting at which he presided, and was adopted with the beneficent results that are known. The college never was rich, either in endowment, or in the wealth of its students. The Middle-West being mainly an agricultural district at the time, the great purpose of the institution was to give to farmers' sons and daughters the cultural opportunities enjoyed by young people more fortunately situated in regard to education. Many of these young people taught school during the winter, others worked in stores—indeed, all manner of trades and professions were represented by students who earned their own way to a diploma.

Expenses were then and still are modest. In the 60's and 70's $200 to $300 a year sufficed. Indeed there is a record of one student, now an eminent Presbyterian divine, who got through one term on $38. Still another, now a distinguished educator, managed a term on $30. The outstanding feature of the institution was to encourage and aid students in gaining an education that otherwise would have been denied them.

The college has always aimed high. In 1864, at the dedication of the main building the principal address was delivered by Salmon Portland Chase. In the midst of it a telegram was handed him which he opened and read. It was from President Lincoln, offering him the appointment as Chief Justice of the Supreme Court of the United States. There is no record of the effect which this despatch had on the remainder of his oration.

Among the eminent alumni of the college we may mention the late Secretary of State Philander C. Knox, also Bishops John W. Hamilton and L. J. Boiney; Rear Admiral Frank H. Bailey and Dr. J. J. Wallace. The list of its distinguished sons is a long one.

To Dr. Hartshorn belongs the credit of having founded the college. Lewis Miller participated actively in its development, and as we review his educational enthusiasms we can well sense his influence and its impact on the work in hand.

Note, please, his intense democracy, his impatience with the social order that denies to ambitious young people the opportunity to reach toward the places for which they are by nature fitted.

This attitude of mind may be disputed. "If a boy or girl has talent it will show itself," says

one. Or, again, "You can't hold the gifted man down." These are facts, but they are not the truth which is reached by the correlation of all the facts. Talent frequently does show itself, but it needs a chance for proper development. Talent may show itself in crime, and in inciting mobs against social welfare, in the engendering of hatred and wrath and malice and destruction; in poisoning the public mind and in a thousand ways that militate against human advancement. But all good men and women are working for a better world, and they know that it is best to aid talent in improving conditions rather than in injuring them. The gifted man who uses his natural equipment to kill hope, to encourage hatred, to destroy sympathy and to spread misery, does not rise; he sinks lower and lower, no matter how great his personal success, his popularity, wealth or fame may be.

Now most misery and backward-leadings in the world to-day come from two sources. The first is at present beyond our reach. The second it is in our power to remedy. Unrestricted propagation of defectives is not yet under control. But the other, bad beginnings, it is possible to reach.

Suppose a boy with real talent is compelled to work so hard that he cannot follow up the trail of activities toward which every fibre of his

being is drawn. He attains his majority and has never been able to gratify his heart's desire. He wants to learn, but has lacked the opportunity. Unlike Lewis Miller he could not leave the farm or factory; his obligations have always held him fast. Then for his ignorance society snubs him. He does not belong where he would like to belong. Soon the iron of disappointment enters his soul. In his heart he knows of his potential worth, but he also knows that he can never develop or demonstrate it. He becomes an enemy to the social order, and thus is anarchy born.

The social order is still stupid and often downright cruel. It ought to be hard, because the battle of life is hard, and it is good for man that this is so. Otherwise we should not advance. But cruelty and stupidity stand out for all with eyes to see. And this it is that should be remedied.

Mr. Miller was constantly urging the authorities to make the Scientific Faculty as broad as possible. In his addresses to the students—and his visits to Alliance were frequent—he was constantly advising them to coördinate their studies with their lifework.

In this as in all other respects, he was intensely earnest. He never ceased to appeal to the Board to loosen up the curriculum, introducing eclectic courses, so that the students might adjust their

studies to the practical issues of life, and develop the faculty of judgment in youth. It was largely his influence that caused Mt. Union College to break away from fixed traditions and, among the first in America, to establish eclectic courses for college degrees.

So unfailing was Mr. Miller in attendance at Board meetings that on one occasion, when Dr. Vincent was visiting him at Akron, the two old friends became so engrossed in conversation that they talked past train time. Mr. Miller, discovering this, chartered a special coach and engine, and arrived at Alliance at the appointed hour. Meanwhile Dr. Vincent paid one of his frequent visits to the institution which later conferred on him the degrees of Bachelor and Master of Arts *in cursu.*

Mr. Miller had the greatest enthusiasm for the humanities, as they are called, and for the general culture that springs from classic learning, but he had no patience for the precious hours wasted in the mere idle parsing and dissection of Latin sentences with no thought for their poetic or historical significance. He resented work that has no place in the classroom except as material for examinations. Mere treadmill learning was abhorrent to him.

In those days science had not become "commercialized," as J. B. S. Haldane expresses it.

Science was the study of nature, and as such Mr. Miller welcomed it and urged it. Neither was his Christianity afraid of science. On the contrary, he held that the study of nature and of processes of life would lead the student closer to God.

Now Lewis Miller was a sound brother Methodist, and he subscribed to the catechism and doctrine of his church. These were the apparatus and machinery of his religion. But it is fair to believe that, were he still living, and in the fulness of his powers, he would not be counted among those who fear the light of truth lest it shatter some postulate of dogma.

Einstein had a vision of the great theory of Relativity, but the doctrine of the ether of space stood in the way. Then what did he do? Did he give up and stop? No; he merely set the theory aside, and proceeded toward his goal. He did not deny the existence of ether; didn't fight over it or protest against it; he merely set it aside as something not yet adequately understood. When more of us have that same courage, enlightenment will spread far more rapidly.

"Seek ye first the Kingdom of God" is one of the greatest commands ever given to man. Lewis Miller was just such a seeker, and he was a man not afraid. He welcomed the study of science as a means of bringing the student

closer to God, and to His Kingdom. He has now been dead twenty-five years. In the meantime the most awful war in history has been fought, and hatred and vindictiveness have grown and spread abroad like the horrid emanation of the mythical upas tree. Governments and peoples have disgraced themselves, and the sense of human obligations has become attenuated all over the world.

Christian men and women have become excited over the affirmations of belief that prevail, and from their actions they appear to have forgotten the first and greatest commandment and the second which is like unto it. But there is a dawning light to-day among a constantly increasing number of thoughtful men, that in time the study of science will lead us back to a sense of God, and to reverence for and faith in Him. It is pleasant to record that a Christian as devout as Lewis Miller, was among the most earnest advocates of the study of science for general cultural purposes at a time when this was still eyed askance or frowned upon by the majority of his co-religionists. Again we see in him the pioneer.

Mt. Union College continues as a thriving and progressive institution, and Miller Hall is filled to capacity.

CHAPTER XIX

MISCELLANEOUS NOTES

UNAFRAID in the moral sense, Lewis Miller was no less courageous in the physical, and, while not seeking quarrels, he proved himself amply able to defend himself at need even by the logic of his fists. He was of good height, broad in the shoulders, and strong. Men liked to work for him because he was fair, but it was poor judgment to try to put something over on him. Beneath the Brother Methodist, the Sunday School Superintendent, and the Promoter of Education there were lions.

The big fight happened this way: The "Oatmeal King," as Mr. Ferdinand Schumacher was called, wanted a spur track from the Valley Railroad to his great mill in the heart of Akron for shipping purposes, and he obtained the necessary permit for it from the City Council. Now Lewis Miller and his neighbors the Congers were misinformed as to the conditions of this permit. They understood that it provided for a track be-

low the street level, with a bridge over it for traffic and pedestrians. To this they had no objection, while a grade crossing, to be used by their children on journeys to and from school, would be dangerous. Mr. Schumacher, himself a good citizen, for his part would have been willing to adopt the lower level plan, but was told by his engineers that it was not practicable. So he prepared to carry out the work according to the provisions of the grant, in coöperation with the railroad.

When Lewis Miller beheld Roadmaster Delaney with a gang of Italians laying tracks at grade, on Ash Street near Howard, at the very foot of the hill on which Oak Place and other residences stood, in what he believed to be direct violation, not only of what was desirable but also of what was legal, those lions in him were aroused and began to roar. Sending for all the Buckeye men who could come, he rushed to the scene with his sons.

Mr. Schumacher, seeing his lawful rights endangered, sent for his Oatmeal men, and then the fight was on. It was great. It was glorious. Rail after rail was torn up and thrown down the embankment by the Buckeye forces, while the Italians tried and tried in vain to drive these down with spikes upon the ties, and the Oatmeal men mounted guard and fought. There were no

casualties of a serious nature; nothing worse than torn garments and bruises. It ended, first by an injunction restraining the Valley Railroad interests from laying grade tracks, and later by a court order vacating the injunction, and allowing the original permit to stand with the grade crossing as a necessary evil. The argument was kept up at fever heat for a time, while Mr. Miller and Mr. Schumacher wrote open letters to one another in the papers. Finally it was settled as such disputes between good citizens are bound to be settled, by a friendly reconciliation. It was however always a source of pride to the Buckeye men that in the big fight their boss had been their leader, even as he was in the works in times of peace, standing on ties, plucking up the offending rails as these were laid, and dealing many a doughty blow to his opponents. In this instance Lewis Miller believed himself to be in the right, and he was not afraid to put up a fight for it.

Another incident illuminates his fearlessness. Shortly after he came to Akron a fire broke out in the Chichester Hotel, corner of Mill and Howard Streets, menacing the adjoining buildings, including the City Offices and Post-office. This meant the destruction of the city archives and other important documents. Moreover the hotel was a tinder-box, and it was filled with guests. The firemen were valiantly at work, but from

the lines Mr. Miller saw a spot where the flames were lapping over with the menace of a general conflagration. The foreman, directing the work from the other side, could not see this, so Lewis Miller dashed through, and, as he did so, a gust of wind swept the flames suddenly down on him. Though badly burned he stood his ground, directing the firemen until the hazard was safely passed. The burns on his face and hands kept him laid up for several weeks, and he carried their scars through the rest of his life.

When the Civil War broke out he was too busy with an essential industry to shoulder a gun or carry a sword. Agriculture had to be maintained. But there were Morgan's Raiders from Kentucky who occasionally crossed over into Ohio, messing things up rather badly, and burning and destroying. So a company of so-called Squirrel-hunters was organized at Canton, as a measure of defence against the invaders. Lewis Miller volunteered his services, and was made Captain.

In 1868 the Governor of Ohio appointed him member of a commission to make plans for the organization and curriculum of the Ohio State Agricultural College, which later became the State University.

CHAPTER XX

THE AKRON SUNDAY SCHOOL

It is now high time to consider the Sunday School of the First Methodist Church at Akron in detail. We have endeavored to show why a man of Lewis Miller's talents and vision should have been so intensely interested and full of vision in regard to the future efficacy of Sunday Schools. First, however, it may be well to recapitulate a little.

To him the Bible was the most profitable field for religious study, but it was not the whole substance of religion. He was ahead of the Protestant theology of his time in that he encouraged research and the quest of truth in the study of nature, beyond the written Word. He would have been the last, however, to neglect a close study of the Bible. Indeed, he later devised an attractive little vest-pocket or pocketbook edition of memory-lessons in this work that were models of their kind. His Akron Sunday

School pupils knew their Bibles better than others, because of these tiny, but comprehensive reminders. Secular schools might well introduce such reviews for other studies.

In Canton he had begun with an ordinary Sunday School and had made it a live establishment with as good a corps of teachers as it was possible for him to secure. He had established system and order, and he had sought to make it a place that young folks would want to attend.

In Akron he had to begin all over again. He found children of widely different ages and mental capacities in classes together, so that the advanced were held back and the backward confused in their efforts to understand. The plan of salvation as developed by Paul, Augustine and Jerome, revised by Martin Luther, and modified by Jacob Arminius and studied in conjunction with Biblical references, was the subject taught. Lewis Miller had a broader vision. While accepting the thesis he went further. He wanted the instruction to embrace as much as possible about God's world, the mystical ways of nature, the beautiful thoughts emanating from human minds and the wonders of science and the arts. In a word, his Sunday School was to be a place of intellectual delight both for young and old. He accepted the mathematical formula of salvation, but his heart went beyond it, toward

the Greater Knowledge, to which man may make himself the heir.

In Akron the Sunday School lacked adequate facilities when he took hold of it in 1864, and the deficiency grew more apparent as the work went on. After considerable effort subscriptions were raised, not only for the School, but for a new church building. This, in Mr. Miller's idea, was to be a great central house of worship, something like a cathedral.

The church was better heated, the seats better cushioned and more comfortable than was usual in such structures. It was equipped with an immense organ. Talent was brought in from another city to train the great choir of a hundred and fifty voices, and under effective leadership the congregational singing became famous. It was the forerunner of the soul-stirring chorals sung by five or six thousand voices at Chautauqua, that, once heard, are never forgotten.

For the final plan of the Sunday School Mr. Miller traveled pretty well over the United States with the architect, Mr. Jacob B. Snyder, seeking ideas. Together they visited many churches, schools and theatres to find what was needed. And then, when they returned, they decided on the original idea furnished by Lewis Miller before they set out! The School was fin-

INTERIOR VIEW OF THE AKRON SUNDAY SCHOOL BUILT IN 1868 ON A UNIQUE PLAN DEVISED BY MR. MILLER TO ACCOMMODATE HIS GRADED SUNDAY SCHOOL

It was the first building ever erected solely for Sunday School purposes and has been copied the world over. It is known as the Akron Plan

ished and dedicated in 1868, before the church was completed.

Years afterward, when the building had long been in use, Mr. Miller said to Bishop Vincent, "Once, a number of years ago, when our Akron Sunday School had a picnic, we were seated for our public exercises in a sort of natural recess in a grove; the ground on three sides sloping to a common centre. At that time I conceived a plan for a Sunday School, the plan I afterwards carried out at Akron, with its room of semi-circular form and its galleries!"

"Thus," added the Bishop, "the picnic ground that developed into the Akron Sunday School, prepared the way in his mind and under his direction for the great Chautauqua Amphitheatre for which nature had provided an ideal ravine."

The novel Sunday School building took the form of this semi-circular auditorium suggested by the picnic ground, with a rostrum in the centre, the whole arranged as parterre and gallery. Back of the parterre and under the balcony were folding partitions by which the space could be divided into class-rooms, or thrown into the general assembly-room at will. The gallery, also, was arranged for such dividings. This enabled the Superintendent to have the whole school before him for opening and closing exer-

cises, without summoning classes from their rooms. And we must not forget to mention the handsome big fountain with gold-fish swimming around in it, and lots of flowers from Oak Place every Sunday, too.

Music was included as an important part in his idea of Sunday School, and whoever could play almost any kind of instrument acceptably was invited to join the orchestra. To hear the "band" play brought almost as great delight to the young children as would have been offered by a circus,—and this on Sunday mornings, too! To be able to perform on the violin, clarinet or flute well enough to be in the "band" was, of course, no less than a title to local eminence, fame, distinction, glory! Think of being fourteen years old and tooting a horn or banging a big drum to 2-4 time as what seemed to be almost the whole world would march in! Such joys are forever lost to us as soon as we grow up.

Several distinctive features were originated by Lewis Miller in Akron, or begun in Canton and developed in the Akron Sunday School, which was the first building adapted to its special purpose in America. One was the design of the building, another the grading of the classes, and these were copied the country over. Even where they could not be copied in full they inspired the greatest interest and exercised a broadening in-

fluence on all sides. What could not be copied was the joyous good fellowship that prevailed under Mr. Miller's leadership.

Also new in Sunday School procedure and of signal value was the organization of his teaching corps. This consisted in conferences between Superintendent and instructors, held on Sunday evenings, for the study of the next week's lesson. And the studies included, especially for the elder children, a consideration of nature and of science as proper subjects for instruction. The result of this was not merely an enlarged scope of work discussed; it went far beyond that. It established a close and intimate relation between the leader and his assistants, and a quickening of their enthusiasm. This, in turn, communicated itself to the relation between teachers and pupils, bringing home the point of the lesson as something active, something vital in everyday life—Christianity in its broadest sense.

The normal classes lasted throughout two years of the course corresponding to the final two years of high school. Mr. Miller prepared the curriculum until 1868, when he adopted that of Dr. Vincent. After the normal course the pupil, now an adult, would enter one of the two large classes conducted by a couple of Akron's leading lawyers. One of these groups was known as Rosario, the other as the Reserve Corps for

Teachers. Both were the theatres of lively discussion of current topics and of the philosophy of human obligations. Many persons who attended service at churches of other denominations were members of these associations, and came diligently to their meetings at nine on Sunday mornings.

To this day the greatest difficulty in the conduct of Sunday Schools is to find efficient teachers; hence these training classes and the number of teachers from secular schools enlisted. It was the best Lewis Miller could do at the time with the means at hand, but it did not satisfy his ambition. It was only satisfied later, at Chautauqua, when in coöperation with Dr. Vincent, he could draw the leading men of the world to their meetings; when each one of these leaders of thought would expound his subject in such wise as to make history.

The same difficulty, it may be remembered, had been encountered far more in Canton, at a time when there were no Sunday newspapers, when golf and tennis were unknown, when even to take a Sunday walk, except perhaps in a graveyard, was something of a desecration.

The Bible, he believed, should be expounded so as to make the interesting things with which its pages bristle bring a real message, hold a real meaning. For those to whom the religious life

consisted only in attendance at divine worship, he had no patience. While such attendance was a fixed duty in his eyes, the religious life, he felt, included a study of man's relation to God in every aspect, and for this study he considered the Sunday School the most efficient agent for the general public within his reach. It called for the participation of worshippers of every age in the activities he initiated, activities that included recreation and cultural opportunity for all.

But where to obtain teachers for such a novel plan? Those engaged in Public School work were slow to respond. Their daily work was too arduous for them to take on anything more. At first they declined. But they reckoned without their host. His idea was that, not only pupils, but teachers as well, should enjoy Sunday School; should turn to it as a source of recreation as well as enlightenment on religious subjects. In this respect his own personality proved his best advocate when presenting his ideas. He was immensely in earnest about whatever he undertook. In the matter of discipline he relieved his teachers of all trouble, because by some mystic bond between himself and his pupils he maintained the order needed. He relieved them of the fatigue of preparing data for the lessons because he not only mapped out the work but discussed it with them, a week in advance. It made teach-

ing easy for those who had the art, and it helped the lame to walk.

Above all, the children enjoyed it. They wanted to go to this Sunday School because it was exciting and delightful.

In his family as in school when a teacher, or in Sunday School for the long years he was Superintendent, he recognized the obligations of his authority as head, and he maintained this authority. But he did not give way to anger, nor would he speak reproof in any but a very gentle voice.

We have discussed the Akron Sunday School at length because it is there we find the urge toward the Chautauqua movement and establishment. We find the same tendencies in Mr. Miller's connection with Mt. Union College. Dr. T. P. Marsh, sometime President of the college, after citing his princely benefactions to the institution, says: "Mr. Miller was thoroughly posted on all the questions of the day, and could discuss them and argue concerning them cogently. He had broader views on education than many educators. He gained an enviable reputation on the Board of Education at Akron. He had a passion for popular education. He wanted academic and collegiate requirements kept within the reach of our young men. He feared the colleges and high schools were setting their courses a little too high for the greatest good to the greatest

number. He wished higher education to be the actual attainment of the rising generation. This was no less than a passion with him. Time and again I have heard him talk on this subject with all the incisiveness and grasp of the trained educator."

Mr. Alvin I. Findley, editor of "Iron Age" in New York, a former pupil of the Akron Sunday School, said of Lewis Miller, "I shall never fail to picture him as he came early to the Sunday School room, his arms full of flowers, his face beaming with the joy he found in his work. He was one of the world's rare optimists who not only believed in the day of better things, but worked untiringly to bring this day about."

We think Dr. Marsh suggests the germ of Chautauqua in the statement: "He wished higher education to be the *actual attainment* of the rising generation." It is not the higher education in the working sense, as, for instance, such training in the physical sciences as would lead to research. It has rather to do with the historical record of what has been done and what is being done, with a view to augmenting the lives, broadening the vision, and enlarging the understanding of the people as a whole. That in truth was Lewis Miller's passion.

CHAPTER XXI

INTRODUCING DR. VINCENT

It is now high time to introduce a man two and a half years younger than Lewis Miller who followed the developments of the Akron Sunday School with greatest enthusiasm, and who was destined to work with its Superintendent in loving friendship, rare intimacy and close good fellowship as long as life lasted. This was the Reverend John Heyl Vincent, born at Tuscaloosa, Alabama, on February 23, 1832, of Huguenot ancestry.

The visits of John and Charles Wesley and of George Whitefield to America in the Eighteenth Century had made Methodism very strong, especially in the Southern States. The country was young, its methods crude, while religious development had assumed an emotional rather than a reflective phase. Life was hard, living plain, and thinking simple. Like young Miller, young Vincent had grown up from childhood under Methodist teachings.

According to Dr. J. L. Hurlbut, in his "Story of Chautauqua," Dr. Vincent used to say that he began his ministry before he was six years old, preaching to the little negroes about his home. In his early childhood the family moved to a farm near Lewisburg, Pa., where, at the age of fifteen, he taught in a public school. At sixteen he was licensed as a local preacher, and soon he became a circuit-rider, traveling on horseback with a pair of saddlebags for luggage, and boarding 'round among his parishioners. It took four weeks to complete the circuit. On his mother's death he visited relatives in Newark, N. J., and served in the city mission there while studying at the Wesleyan Academy on High Street. He had a thirst for education and read diligently whenever possible.

In 1853 he was received in the New Jersey Conference and obtained his first charge, at North Belleville, now Nutley, in that State. A handsome church in Nutley bears his name to commemorate his early ministry. His second charge was in Irvington, N. J. Here he began his normal classes for teachers, at the time when Lewis Miller was Superintendent of the Sunday School at Canton. In 1857 he was transferred to Joliet, Ill., where he met and married Miss Elizabeth Dusenbury. He was a year at Mt. Morris and here he studied at the Methodist

Seminary while continuing his pastorate. In 1860-61 he was at Galena, Ill., where General Grant was a constant attendant at his church. After two years at Rockford, Ill., he was appointed to Trinity Church, Chicago, then the most important Methodist church of that city. That was in 1865.

In Chicago he found fellow enthusiasts in Sunday School work, and he established the "Sunday School Quarterly," and later the "Sunday School Teacher" which he edited. He was then called to New York to become, first, General Agent of the Sunday School Union which directed Methodist Sunday Schools throughout the world. In 1868 he became its Secretary and Editor, and he organized and set in circulation the Berean Uniform Lessons which by 1873 had come into general use.

Lewis Miller's pioneer work in Sunday School development and his organization of normal classes for the preparation of teachers naturally brought these two men together. They met first in 1868, at Akron. Both were enthusiasts over things to be accomplished in Sunday Schools, and both specialized in the training of teachers. But they approached the subject by different paths. Miller was a layman who held that Sunday Schools should cover the ground that secular training missed; not in religion alone, but in gen-

eral culture, in broadening the pupils so that they should feel themselves capable of getting out of the stupidities of life into which all but the exceptional men and women drift, unless they have leadings into the fields of knowledge and understanding. Miller was rich, eminent, and intensely democratic, as we have shown. Sunday Schools were not fulfilling his ideal of their function successfully, and he wanted to make them do so. Aside from the normal course, the Akron institution included such extraneous subjects as poetry, the drama, *belles lettres,* science and the like, in its courses.

Vincent, on the other hand, was a minister, had been brought up in the ministry, and to him the Sunday School was more specifically a means of religious instruction. It was the road to membership in the church and to support of the church. Also it is doubtful if the problem of citizenship concerned him as deeply as it did his close friend. His was the faith that a good Christian foundation would ensure good citizenship. Lewis Miller subscribed to this also, but as the more scientifically-minded man, he wanted to see it through.

Again, Dr. Vincent was not only conservative in his views; he was aristocratic in feeling. Starting as a lay preacher, he had read widely, studied earnestly and had developed a very scholarly and

engaging platform habit. From the boy-exhorter he had grown to be the mystical leader rather than the emotional preacher. Moreover his was the gift to present whatever he had to say with such charm and fascination that his speech was well-nigh compelling. His speaking voice was of rare beauty and persuasiveness. Indeed, it is doubtful if any of the other great preachers or orators have excelled him in this respect.

Like Lewis Miller he was unworried by Christian dogma. He accepted it in youth, and held to it rather more literally than did his friend throughout his life.

CHAPTER XXII

THE BEGINNINGS OF CHAUTAUQUA

Beginnings are seldom simple; many factors usually enter into them. One of these factors in the origin of Chautauqua was the camp meeting, and since they are bound to come into the discussion we must bear in mind that, though they were frequently held and popular, they were not growing in favor with the more thoughtful members of the Methodist Church. As Mr. Hurlbut says, "They dwelt too deeply in the realms of emotion and excitement. . . They stirred the feelings to the neglect of reasoning and the thinking faculties."

Lewis Miller was keenly alive to the shortcomings of camp meetings. They were distasteful to him, and he did not hesitate to say so. But they were also an established feature of his church, and as a loyal churchman, he supported them. Probably he hoped that in time, with the broadening of general culture, they would improve. Thus we find his name recorded on April 13, 1871, as one of the Incorporators of the

Chautauqua Lake Camp Meeting Association, from which he subsequently acquired its holdings in order to establish what later became the Chautauqua Institution.

Another of these factors which enter into the beginning of Chautauqua was Mr. Miller's great love of the open air and the woods; while still another and more important, was his enthusiasm for broadening the field of Sunday School work. Of leading significance was his friendship with John Heyl Vincent. And we must not forget his interest in secular school-teachers, and his sympathy for them.

The first concrete expression of the idea is to be found in August, 1872, when Mr. Miller attended a session of the Ohio State Camp Meeting, for "The Promotion of Holiness," in company with two ladies, sisters, who had been teachers in his Canton Sunday School. These were Mrs. Kate Patterson Bruch, and Mrs. Lydia Patterson Kitt, then of Canton. He had known them since they were children, and Mrs. Bruch was a very close friend of his family.

These three were sitting apart from the body of worshippers when Mr. Miller who had been meditating, turned suddenly and said, "Girls, why wouldn't it be a good idea to have a Sunday School Camp Meeting?"

The very fact that they were sitting apart

from the throng explains why the ladies begged him not to think of such a thing. But he explained his idea:

"Oh, I don't mean a regular camp meeting. I should call it a Sunday School outdoor meeting, or a Sunday School Woods Meeting or a convention, held in the open, where all people interested in Sunday School work could meet—say, for three weeks—for Bible study, normal class work, and general instruction relating to it!" Then he enlarged on the theme. "There should be musical entertainments, lectures and pleasant recreation, as well as devotional exercises. So many Sunday-school teachers teach day school as well, that this opportunity to have their rest and holiday, while at the same time preparing for their next season's work would be a great benefit to them."

This aspect of it commended itself to the ladies and the more the subject was discussed the warmer became their enthusiasm for it. Mr. Miller elaborated on his idea, outlined the bigness of the scope of the undertaking, in a word he sensed the thing that Chautauqua has since become. These meetings, he foresaw, would be both beneficial and far-reaching in their influence, and, as they arose to depart, he said, "The next time I see Vincent I shall take this thing up with him!"

Now in 1869 or '70 Mrs. Bruch had visited Mr. Levi Miller who was operating the Safe & Lock Works for his two brothers, Jacob and Lewis, at Westfield, N. Y., and she thus became acquainted with the Chautauqua district. In September, 1871, she had attended a small camp meeting with Mrs. Jacob Miller at Fair Point on Lake Chautauqua, and the two ladies had been so taken with the wild beauty of the place that they negotiated for the purchase of the lot on which their tent was pitched, Lot 16, for account of the two Miller brothers Jacob and Lewis. (Lot 16 is now the site of the Miller cottage at Chautauqua.) The first camp meeting had been held there in June, 1870, up to which time "the sound of the axe had not been heard in those woods." Recalling the beauty of this spot Mrs. Bruch now suggested it to Mr. Miller as an ideal place for the great annual summer convention of his dream.

It was not long after this that Dr. Vincent came to Akron, in 1872. He also had a plan for annual conventions for the benefit of Sunday School teachers, but these were to be held during the winter, first in one city and then in another. He proposed to hold the first at Akron, in the fine new Methodist Sunday School building. He wanted Mr. Miller's endorsement of the project, and needed his backing for it. When he had

presented his idea with characteristic enthusiasm, his host said, "Vincent, I've got something bigger than that in mind!" Mr. Miller forthwith expounded his plan for a great outdoor assembly. He had sought a word to replace "meeting," on account of its association with camp, and had decided on "Assembly." "There would be no end to the possibilities of the development of such a place!" he exclaimed, but the more he enlarged on his idea the less it appealed to the conservative Dr. Vincent. For his part he could not conceive of a gathering in the woods for devotional purposes without the rowdy element that invariably appeared at camp meetings, and the hysterical half-wits that would be sure to perform. In short, he was far more disposed to discourage the project than to aid it.

In vain did Mr. Miller strive to persuade his friend to come over to his own way of thinking; the Doctor had set his mind on the annual winter convention for the study of the Bible and the development of the art of teaching it, and all the arguments presented to him at the time were of no avail. The woods, as he feared, would put the camp meeting stamp on any assembly, while the consideration of such extraneous subjects as science and literature in connection with Bible study did not seem to him to be in their proper place in such a scheme.

Early in the summer of '73 Mrs. Bruch, meeting Mr. Miller, asked him how his plan for an outdoor assembly was coming on.

"I have talked it over with Dr. Vincent," he replied, "but he cannot see it as I do. He thinks we cannot make it a success, and I, while believing in it heart and soul, would not undertake it without Dr. Vincent. I want him as head of the Department of Instruction."

Later in that summer Mr. Miller, his daughter Jane, and Dr. Vincent drove over together from Akron to Mt. Union College to attend the commencement exercises. Again meeting Mrs. Bruch, shortly afterwards, Mr. Miller told her:

"We talked about the proposed Outdoor Assembly all the way from Akron to Alliance, and at last Dr. Vincent has consented to take charge of the Department of Instruction."

Meanwhile Mr. Miller had agreed to attend to everything else connected with the great undertaking, giving freely of his time, his labor, his counsel, and his money, as well as his organizing ability, to start it and promote its success.

That same summer he visited Chautauqua with Dr. Vincent after the camp meeting there had broken up, and arranged with the authorities to lease the ground for the following August, in 1874. Again he visited Fair Point with Mr. Elliott, a landscape architect of Cleveland, who

was to lay out the grounds at Mr. Miller's expense. Ten thousand dollars was the sum he expected to expend on this, but unfortunately a hitch arose—the title still rested with the Camp Meeting Organization, so that none but the preliminary work could be done. Fifty years later money was subscribed for this same purpose.

Finally it was arranged that the Assembly should convene on the first Tuesday of August, 1874. Dr. Vincent was to head the Department of Instruction, and all the rest was to be attended to by Mr. Miller.

So now we have Chautauqua ready for launching. Of the two men who did substantially all the work in the beginning it is timely to make a few notes in regard to their like qualities and those that were complementary one to another.

Lewis Miller was a man of big frame, an intense and untiring worker, with a singular gift for invention and organization. Generally acknowledged as the leading citizen of his town, he was popular, and, with his wife, hospitable in a rare degree. He was a man with the social gift to make those about him happy and contented in their intercourse with him. Sitting at table, or on any informal occasion, he frequently led the discussion, and his good fellowship, his originality of thought and expression, his wide information, his scorn of tradition, coupled with

broad charity and democracy, made such discussions memorable. His son-in-law, Mr. Thomas A. Edison, once said of him: "Mr. Miller is better versed on more subjects than any man I know." His weakness was in the matter of public expression. He lacked the oratorical faculty. While his facts would be carefully arrayed and logically presented, the persuasive voice and compelling manner that sway great audiences, were lacking in him.

Dr. Vincent, on the other hand, was one of the most engaging of speakers, always at home on the platform, and his gift of expression was no less than amazing. He did not make a parade of eloquence. His use of metaphor was unforced, never excessive, and when he did employ it this was with telling effect. Exaggeration was wholly foreign to his nature. He was dignified in appearance and bearing, the manner of his speech suggested a somewhat wistful but very genial quality of scholarship, and he had a fine sense of humor that was frequently brought into play. He was a great teacher, a great expositor, and he imparted distinction to whatever he said. So marked was this quality that when it was his misfortune to have a poor speaker to introduce at Chautauqua, a speaker known to be dull, none the less the auditorium would be crowded merely to hear his opening remarks. Against this he

had neither aptitude for nor interest in business organization. In no sense was he a man of secular affairs.

In fact, these two men were admirably adapted for coöperation. For the first two years the complete plans for the Chautauqua season were worked out by the two together during the winter preceding. The programmes were carefully studied out and decided on, and then each took upon himself the work he was best fitted to do.

The requisite authority was obtained from the Methodist Sunday School Union, as the minutes quoted below, which are of historical interest, will show.

"In pursuance of a suggestion made by Lewis Miller, Esq. of Akron, Ohio, the Board of Managers of the Sunday School Union of the Methodist Church at their regular meeting on October 22, 1873, unanimously

"Resolved that we approve the project of a Sunday School Teachers' Assembly in August, 1874, on Chautauqua Lake Camp Ground, and that we refer the whole matter with full power to order and arrange, to the Committee of this Board in charge of the Normal Department."

A meeting of the Committee was held on the adjournment of the Board, and the design of the proposed Assembly was outlined by Dr. Vincent, the Superintendent of Instruction, as follows:

"To hold a prolonged institute or normal class occupying from ten to fifteen days, for the completion of the course of normal study.

"To command, as far as possible, the best talent in the country to assist in the conduct of the assembly.

"To avail of the general demand for summer rest by providing the opportunity for daily study with healthful recreation, thus rendering the occasion one of combined pleasure and instruction."

Lewis Miller of Akron, Ohio, was proposed for President of the Assembly, and was unanimously elected.

The Chairman of the Normal Committee, Rev. J. H. Vincent, D.D., was chosen Superintendent of Instruction.

This record was duly set forth in the first bulletin issued by the Assembly, in August, 1874.

CHAPTER XXIII

CHAUTAUQUA LAUNCHED

We shall not undertake to give complete details of the launching of this great enterprise. The art of handling crowds was not developed fifty years ago as it is to-day, and Chautauqua required that the crowds flocking thither be not only "handled" but cared for in every way: sleeping-quarters provided for them, food and water and sanitation and all other essentials. This taxed the President's ingenuity to the utmost. Also for several seasons at the beginning of the enterprise he was active in arranging the programmes to be carried out, in association with the Superintendent of Instruction. Their conferences usually took place in the library at Oak Place, and a listener at these would have heard constant urging on the part of Mr. Miller for more science in the courses, and as constant solicitude on the part of Dr. Vincent for the predominance of Sunday School Normal work.

Naturally these two men of marked individuality were not always in agreement, because one was a radical, as we have pointed out, and the other a conservative; one took the layman's view, the other that of the cleric. But, once a decision was reached, they worked in unbroken harmony. For instance, at the outset Dr. Vincent was opposed to the appearance of women on the platform. It was contrary to his idea of fitness; it did not accord with the conservative traditions of the day. Not so with Mr. Miller. To him the important thing was that the speaker should have a message to deliver, something vital to tell. His earnestness prevailed; the measure was tried out, and with a success so marked that Dr. Vincent was completely won over to it. Needless to say, his objections were withdrawn with a grace only equaled by the force with which they had been presented.

The deficit shown by the first year's accounting was met wholly from Mr. Miller's private purse. In the meantime he induced some wealthy friends to help support the enterprise. Among these were Mr. Jacob Miller, Mr. Clement Studebaker of South Bend, afterwards president of Chautauqua, Mr. Root of Buffalo, Mr. Massey, at one time of Cleveland and later of Toronto, and others. All were intimates and frequent visitors at Oak Place. By the third year Mr. Miller

had worked out the financial plans so that at slight expense to each person registering for the courses, the institution had become self-supporting. To accomplish this, while at the same time keeping Chautauqua from becoming a commercial organization was his constant preoccupation.

Dr. Vincent's Sunday School conventions were thus to be held annually, but in summer instead of in winter, and with modifications and enlargements in their scope. Also his original idea, as has been noted, was to change the place of meeting from one city to another, in different years.

Lewis Miller had an easy way of avoiding dispute by not talking too much. He had no thought of moving away from Chautauqua, and as soon as the Association had been organized and was in a position to become a property-holder, he resolved to secure the real estate from the Camp Meeting Association. This was done early in its history. He resolved also that nothing should detract from the complete fulfillment of Dr. Vincent's plan for an annual Sunday School convention, but that the educational scope of the organization should be much broader. He was sure that in this respect Dr. Vincent would agree with him when the time came, and he was right.

There's a little incident told in a letter by Mrs. Bruch about the first meeting, which is charac-

teristic of Lewis Miller. She, and, no doubt, her friend Miss Jane Miller, were stopping at the time at the Swiss Cottage which was the President's home on the Chautauqua grounds.

"Mr. Lewis Miller," so she wrote, "as President of the Assembly, was in demand everywhere. He was untiring in his efforts to keep things running smoothly. We who knew much of what went on behind the scenes, could not but marvel at his endurance and cheerful kindness, and for the patience that never failed. The last meeting of the session of '74 was one of thanksgiving and praise for the success of the undertaking. To the surprise of the ladies of our party Mr. Miller was not on the platform, nor could we see him in the audience. His absence was not commented on by the speakers, nor, indeed, was his name mentioned at all!

"We returned to Swiss Cottage, full of resentment at this omission, and wondering, too, what had become of the President of the Assembly, the man whose brain and heart had evolved the scheme on which it rested. We found him lying exhausted on a couch. Early in the evening some of the machinery for pumping water for the grounds had given out, and, lacking competent assistants, he had gone to work to repair it.

"He lay there, silent, while we spent our wrath,

"THE SWISS COTTAGE" BUILT IN 1874 BY LEWIS MILLER

The first one constructed at the Chautauqua Assembly

and when we had calmed down somewhat, he said quietly, 'What difference does it make who gets the praise, if only the thing itself is a success and the work goes on!' "

The second year, 1875, the scope of the work was broadened further, though with no neglect of the Sunday School features. Evening concerts were given on the lake, and the musical instruction and performances were on a higher plane than at the outset. Culture was beginning to show its leaven. A class in Hebrew was started, and a few scientific lectures were given by Professor Tingley of Allegheny College. President Grant visited the Assembly as the guest of Mr. Miller. Mr. Miller also brought the choir of a hundred and fifty voices, with the choirmaster from the Methodist Church at Akron, as well as his normal class from the Sunday School.

The attendance this year reached 3348.

In 1876 there were many good people who thought it would be the path of wisdom to forego the Assembly that year entirely, because of the Centennial Exposition at Philadelphia, which, they held, would draw visitors away. But they did not reckon on the team-work of the Founders. One might be a radical, the other a conservative, but together they were as one on not omitting a single annual convention. To have done so, in

their eyes, would have been like scuttling a first-class ship. So Oak Place was the scene of a well-laid conspiracy; one which offered a counter-attraction to the Philadelphia Exposition. The plan was to summon a Scientific Congress to Chautauqua that summer. So unprecedented was this concept of the duties and privileges of a Sunday School assembly that many of the wiseacres were greatly shocked.

Dr. Charles A. Doremus of New York, who was present as lecture-assistant to his father, has recorded the following recollections of what took place at this, the first Chautauqua Scientific Congress, held in 1876:

"It was truly said, as a result of the first day's programme, that nothing like it has ever taken place in this country. It conjured up pictures of the groves of Greece in which Socrates, Zeno, Plato and Aristotle taught their disciples the philosophy of their times.

"The opening services began in the Pavilion, at 9:30 A. M. on Wednesday, July 26, 1876.

"Dr. Vincent read selections from Genesis, Job, and The Psalms:

" 'In the beginning God created the Heavens and the Earth.'

" 'But ask now the beasts and they shall teach thee; and the fowls of the air and they shall teach thee. Or speak to the earth, and it shall teach

thee, and the fishes of the sea shall declare unto thee.'

" 'The heavens declare the glory of God, and the firmament showeth His handiwork!'

"Then followed a hymn, then a lecture by the Rev. J. M. Buckley of Hartford, Conn., who spoke on 'The Circle of the Sciences,' outlining the various approaches to the study of that which relates to the inanimate universe, to living beings exclusive of Man, and finally to Man.

"After a recess Dr. E. O. Haven, Chancellor of Syracuse University, lectured on 'The Relation of Material Science to Mind and Spirit.'

"Professor R. Ogden Doremus followed with the first of three copiously illustrated lectures, relating particularly to chemistry and physics, in the afternoon. The experiments were prepared on a scale that made it possible for the entire audience to see them clearly. About three tons of apparatus and accessories were brought from New York for this series.

"The subject of the first lecture was 'Heat; its Sources and Effects.' Prof. Doremus began by telling how very little we know of the earth on which we live and of the recent acquisitions to the knowledge which we possess.

"One of his most striking experiments was that of Plateau. A globe of oil was placed in the centre of a mixture of alcohol and water of the

same density. The whole was then rotated, and, as this was done, the globe of oil first flattened at the poles, and later broke up into very small globules, each revolving about the central point on its own axis. This represented a miniature celestial constellation, and typified the solar and other systems.

"From this and other experiments, together with the observations of astronomers, it was argued that the various types of heavenly bodies, including the earth,—except those still in a gaseous state,—showed a once molten condition. The cooling of any one of these and the gradual change to the present condition of the earth was next considered.

"Dr. Lyman Abbott was present, and he then and there declared that 'This lecture makes an evolutionist of me!'

"Many experiments followed, showing how heat may be generated, and how its effects may be made to serve the desire of man in manufacture, transportation, and in securing the comforts of life.

"When we consider that this date, 1876, was quite ahead of the general use of liquefied gases, the presentation of liquefied nitrous oxide or laughing-gas, and of liquefied and solid carbon dioxide by means of which mercury was easily frozen, will make it readily understood that the

audience witnessed remarkable and early demonstrations of Man's control of heat through abstraction, or by generation.

"The second lecture took up 'Heat Related to Light.' The third had for subject 'Heat Related to Electricity.' The latest known forms of artificial illumination were explained. So also was the spectroscope and the discoveries made by its use in regard to the constitution of the sun and the stars; the recognition of hydrogen, iron, calcium, and many other elements contained in them,—all of which were unknown until the middle of the XIX Century.

"A primary battery of 100 cells was used to illustrate experiments in electricity. The relation of the electric current to animal organisms was shown, and also the generation of currents by means of animal tissue. To show the stimulating effects of currents on tissue that is almost living, a bullock was slaughtered near-by, and the head brought immediately to the lecture-table. Then one pole was placed in contact with the spinal cord, and whenever the other pole was touched to the surface of the skin, there resulted the most lifelike muscular contractions; the eyelids winked, the nostrils contracted, and the lips and tongue moved. Imagine what a sensation this produced!

"While these lectures were in preparation Dr.

Doremus visited France, and there he discussed the programme of this scientific course with the minister of a French Protestant church in Paris. When the French clergyman heard the list of subjects to be presented, he threw up his hands and exclaimed, 'Oh, Monsieur! We in France are not such robust Christians!'

"One might think that the lectures enumerated gave the hearers their fill, but on the contrary: the evening of the second day the same great audience crowded in to hear Professor S. A. Lattimore of Rochester University discuss 'Physical Forces,' and next morning 'The Wonders of the Sun.' Professor Lattimore brought out the fact that Galileo invented his telescope about the time that Hendrik Hudson sailed into New York Bay, and that only a hundred and fifty years before the meeting at which they now were gathered it had been taught at Yale University that the sun revolves about the earth!

"Dr. Alexander Winchell of Syracuse University lectured on 'Rocks,' also 'The Geology of Lake Chautauqua.' Then followed a conference. And thus the teaching of sciences at Chautauqua which continues to this day was duly launched in the year 1876.

"There was no desire," continues Dr. Doremus, "to revive questions of antagonism between Science and Religion. That matter was relegated

to the past by nearly all in attendance, and the new era of tolerance was frequently emphasized by the speakers. The success of this attitude fully justified Mr. Miller and Dr. Vincent in their broad-minded inauguration of such presentations of science to a body gathered primarily for religious instruction!"

As a logical outcome of the Chautauqua movement, the Chautauqua Literary and Scientific Circle was started in 1878. It began as a four years' reading course according to a prescribed curriculum, and it was so arranged that new members might join the circle any year instead of all having to start together. This made the course continuous, not of necessity ending with graduation, at the close of four years. The idea of the "C. L. S. C." was to provide a course of intelligent, informing, interesting reading, continuously from youth to old age. In a word it established a life-direction over the reading of its members. Time has modified its scope, and in later years it has developed along secular and cultural lines for the reason that public interest in denominationalism has waned. Its membership now includes a vast army of readers all over the world.

It is not our purpose to give even a general outline of the activities of the Chautauqua Institution. That would cover too much ground. But

a few words culled from an address by Dr. Arthur E. Bestor, now president of the organization, will indicate something of its nature.

"Theodore Roosevelt characterized Chautauqua Institution as 'the most American thing in America.' It is the oldest summer school in the country, one of the most potent agencies in existence for popular education through the Chautauqua Literary and Scientific Circle, a principal forum of the English-speaking world, and the originator of many movements which are now carrying on the work under its own name.

"The natural development of the original purpose early led to several broadly educational undertakings. The Chautauqua Literary and Scientific Circle, founded in 1878, spread quickly to every State, and also to several foreign countries, the School of Languages, established in 1879, was extended to include pedagogical courses in 1880, and, under the late W. R. Harper, became a system of fourteen summer schools.

"Largely speaking, the first stage in the Chautauqua Summer Schools was the oldest-fashioned stage of studying-for-knowledge course.

"The second stage . . . was the addition of various activity courses, the first three being Music, Microscopy and Mineralogy. . . .

"The third aspect . . is now developing. This

is the attempt to promote social responsibility. It suffuses the headquarters of the Department of Religious Work, it is wafted from the platform in scores of sermons and addresses, and it is perceptible in the whole atmosphere of the City of the Woods.

"The Chautauqua Summer Session has been lengthened from twelve days to sixty. The daily programme has been strengthened and enriched, the platform has been kept in sympathetic relation with the best things in national life, the home-reading course has been more and more nicely adjusted to the needs of Chautauqua readers. . . .

"Theodore Roosevelt gave lectures at Chautauqua which he later developed into 'The Winning of the West.' Fairbairn of Oxford tried to make plain the philosophic issues which the oratory of Joseph Cook had clouded. Mr. Owen Seaman, now editor of 'Punch,' visited the United States solely to lecture at Chautauqua on The Greek Drama, Tennyson, Browning, and other subjects of like nature. . .

"Garfield, in 1880, said at Chautauqua that the American people are gaining leisure, and on the use of this leisure the future of the nation will depend. Chautauqua's Home-Reading Circle was designed to help at this very point—and it has helped!

"Chautauqua successfully attacked the superstition that a person can be too old to learn, and did so decades before psychologists declared that the mental arrest or stagnation often encountered after the school age is past, is one of the greatest dangers to the race.

"Chautauqua has been dominated by a religious spirit, at the same time it has avoided sectarian strife and theological narrowness. The Institution has stood for a conception of religion which includes all the essential elements of a well-rounded life, intellectual integrity, moral earnestness, the appreciation of beauty, and a social solidarity and obligation of service."

To this fine presentation of that which Chautauqua represents in the national life we have a few notes to add:

Chautauqua owns lands and property of great value, but, following the insistent principles of its Founders, it is not a commercial enterprise. It has no stock, and it can pay no dividends in money.

Accommodations are comfortable; the climate, some 1400 feet above sea-level, is pleasant. The management, while always gentle in expression, is unvaryingly firm in adherence to its rules. Also there is something going on there all the time. The New York Symphony Orchestra was there during the past season of 1924.

The most eminent authorities are always there, one season or another, to lecture on their various subjects, and their addresses are given in the great amphitheatre or in the lesser halls, as conditions may dictate. Plays are given by standard dramatic companies and the plays are standard. In the meantime there is daily instruction in the different schools in Religion, Languages, both ancient and modern, the Fine Arts, English, Mathematics, Science, History, Pedagogics, Home Economics and Domestic Science, Music, Arts and Crafts, and many other branches of knowledge both useful and cultural.

The grounds are equipped with tennis courts and an excellent 18-hole golf course, also there are facilities for bathing, fishing, sailing, canoeing and all water diversions.

That the religiously inclined of the various Protestant denominations may feel themselves at home there are separate houses: Methodist, Episcopal, Baptist, Presbyterian, Unitarian and still others. Any visitor is permitted to be as denominational as he or she inclines, provided there is no attempt to sidetrack the Institution into denominational lines. That is absolutely forbidden.

The so-called local Chautauquas convened in villages throughout the country are not part of the Institution which maintains its integrity

within its own domain. These local meetings are operated by various lecture-bureaus. Nevertheless Chautauqua is friendly to them, and does what it can to make their work valuable.

Now suppose the two Founders, Lewis Miller and John H. Vincent, could be called back to life, what would they say? What *would* they say? Seeing 15,000 to 18,000 people gathered at old Fair Point, enjoying themselves and getting what they went there to gain, though in a manner far different from that of those first days in 1874! We can only surmise, but it is hardly probable that they would be greatly surprised. They builded big when they began. It is far more likely that they would clasp hands, and smile, and it may be, drop a tear or two, witnessing how their child had kept the faith and how nobly it had grown!

In 1888 Dr. Vincent was made Bishop of the Methodist Episcopal Church, and this necessitated his resignation from the educational management of the Assembly. He was succeeded in that office by his son Dr. George E. Vincent, who, after graduating from Yale in 1885, had been made Editor of "The Chautauquan," and at the same time assistant to his father in the direction of instruction.

Dr. George E. Vincent's contributions to the growth and development of the Institution were

THE LEWIS MILLER BELL TOWER AT CHAUTAUQUA
Built in 1911

remarkable. To his immense native gifts he added youthful enthusiasm and an administrative capacity that later took him to the University of Minnesota as its President, and thence to the presidency of the Rockefeller Foundation in New York,—in short, to become one of the most distinguished men in America. Under his regime at Chautauqua there was no let-up in religious instruction, but the development was more markedly on the side of religious philosophy than of dogma. It was he who brought Theodore Roosevelt to lecture there, also Professor Mahaffy, the celebrated Greek scholar from Dublin, and others who emphasized the value of the fine arts. Rabbi Gottheil, of New York, went there at his behest to expound the principles of Jewish faith, and Father McGlynn to set forth another aspect of religious belief. Andrew D. White and Jacob Gould Schurman are also among the great men he summoned to the Chautauqua platform. Of George E. Vincent someone once said, "Nothing ever drags when he's around!" Under the stimulus of his management Chautauqua grew bigger and broader than ever. Lewis Miller, the first president, getting along in his sixties, and every year more radical than before, and no less catholic than ever in his views, was immensely pleased as he watched this development from the Swiss Cottage. After his

death it was a matter of course that Dr. Vincent should succeed him in the Presidency of the Institution. He is now its Honorary President.

As testimony to the time and ability Lewis Miller subtracted from his business affairs to devote to the founding and development of Chautauqua we have only to examine the patent records. During his life he took out about a hundred patents. From the time Chautauqua began, in 1874, until 1878, only two of these were taken out, and neither was important. When the movement was well established he began his own work again, and the next year shows eight patents to his credit. Nothing was too small for his attention, provided it had an important bearing on the general conduct of affairs. He would take off his coat and repair a disabled piece of machinery or a broken pump, and with the same serene good-nature he would stand before the vast audience in the Amphitheatre and announce a programme. Wherever he felt himself to be most needed there he was sure to be found.

And so we conclude our notes on Chautauqua.

CHAPTER XXIV

CLOUDS GATHER AND SHADOWS DARKEN

We must now return to the history of the Buckeye Mower and Reaper which is so closely bound up with the life of its inventor. It will be recalled that there were three works producing these machines and other implements, operating as C. Aultman & Co., Canton; Aultman, Miller & Co., Akron, Ohio; and Adriance, Platt & Co., Poughkeepsie, N. Y., manufacturing under license.

Cornelius Aultman had sold out his interest in the Akron works to Lewis and Jacob Miller some time before, in order to meet certain obligations entailed by his outside investments. Later he parted with most of his Canton interest to them and withdrew from active business. When he died, in 1884, he was a very rich man. Jacob Miller succeeded him in charge of the Canton works, and when Jacob died, in 1889, Robert Anderson Miller took control at Canton, Lewis Miller becoming President. While George C. Crouse re-

mained President of Aultman, Miller & Co., at Akron, Ira Miller became Secretary there while C. H. Wright was Treasurer, and Lewis Miller remained Superintendent.

In the late 80's the Canton works had extended somewhat in the direction of export trade, and the venture did not prove profitable. Competition in the whole business of mowing and reaping implements had grown very keen, and all producers were taking farmers' notes on long credits. A mowing-machine worth $50 would sell for two notes of $25, each, due respectively in one and two years. All manufacturers were loaded up with these farmers' notes which were not bankable, and it required immense loans to carry them.

The effort to avoid this cut-throat competition by the formation of a trust in 1885 had been prevented by the failure of Baring Bros. in London. But, except for the Canton works, which were a little top-heavy, the Buckeye companies were in good shape. Indeed, at the end of '92 and the beginning of '93 Akron was so flourishing that Mr. and Mrs. Miller set out to be gone for several months on what they termed their second honeymoon, visiting the Chicago Fair, the South, the West and the Pacific Coast.

In the late spring, without the slightest warn-

ing, the great money panic of 1893 came on the country. All of a sudden there wasn't any money to be had anywhere. It was one of the financial curiosities of history. The writer was at the time an officer in a large corporation with headquarters in New York. In the early summer he was visiting the Exposition at Chicago, and he had great difficulty in getting a $200 draft cashed at the Chicago office of his own company. It was practically an unauthorized moratorium. One could not draw cash against his own deposits in a bank.

Mr. and Mrs. Miller were in California. Akron had been carrying Canton along for some time, but now everybody wanted to realize on his assets. Jacob Miller was dead, but his name was on a great deal of the paper of the Canton firm, and Lewis Miller's was on it all, as personal endorser. The Canton works had been financially weak for some time before he took over the presidency. He was a minority stockholder here though a majority stockholder at Akron. So he returned post haste from his holiday to meet the Canton creditors. He turned over his stock in both establishments to be held in escrow, and obtained an extension of four years to realize on the assets of the Canton concern. A stockholders' liability law was then in force in Ohio, which pro-

vided that the stockholders of any corporation in that State should be liable for twice the par value of their stock-holdings, in case of liquidation.

Lewis Miller met the situation with everything he possessed, and the works continued to operate with several bankers representing creditors on their Boards. He continued in office as President at Canton, and in Akron as Superintendent. He undertook the gigantic task of bringing these concerns back upon their feet in four years' time, and he strove to solve the problem with unremitting care, but the strain on his health was too great, and before long he broke down. He was forced to go away to recuperate, and in his absence the Akron works did not do so well as when under his control. It was two years before he was able to assume the burden in full again, but when at last he did so he brought order back in Akron, and soon he began to see light ahead. A number of years after his death the Buckeye establishment was disposed of to the International Harvester Co.

He could see light ahead, not only because it was his temperament and disposition to do so, but because with untiring patience and invention he really was putting the Akron concern on a sure footing again. He paid his debts, and although a good part of his wealth had been swallowed up in the vicissitudes of the long-lived

panic and by the avarice of men that prevails at such times, he was in no sense a broken man. He had been through hard places, his faith in human nature had been strained, but it had never given way. He was making progress.

Obviously, for one who in himself had always been the spirit of hospitality and a leading philanthropist; who could not only foresee but actually bring about a unique Sunday School, happy and progressive, conducted on the broadest lines, and operating with the maximum of efficiency; who felt, and not only felt, but actually effected that Mt. Union College should be all it was purposed to be; who saw in dreams the loveliness of a great school on the Greek plan of the Academies, with the Grove-Teachers in beautiful temples in the woods; who worked and strove and argued and persuaded and spent freely of his time, his ability, his means that this should finally be brought to pass in Chautauqua—for such a man to lose his wealth as he was nearing the age of seventy, was a severe blow.

But in the year 1898 he was marked for tragedy.

As a young man he had not gone to the Civil War because he was vitally engaged in an essential industry. When the Spanish War drafted the man-power of the country his two youngest sons answered the call for volunteers. He was proud

of his family, and in the home as in the factory, he always insisted that he and his should meet their obligations, whatever these might be. So John and Theodore joined the colors with his approval. Theodore was the right arm of his hope; he was remarkably endowed both in ability and in character. He was his father's Benjamin. And early in the struggle he fell in the battle of San Juan Hill.

A few months later his daughter Jane, his confidante and aid in educational and philanthropic work both before and after her marriage, who had been suffering from valvular heart trouble for two years, followed her young brother into the shadow.

Tortured to the quick by fate, none the less Lewis Miller still kept his face turned toward the light. But in February, 1899, he was suddenly stricken with abdominal trouble, and confined to his bed. His old physician was dead, and the new one did not understand. Next day, after a consultation he was sent to New York for a major operation. The sleeping-car by which he traveled broke down on the way, and was left behind with its passengers on the Jersey meadows for a whole night without heat, so that the invalid's sufferings were augmented by a heavy chill. Next morning he was carried by ambulance to the hospital, and underwent the opera-

MARY VALINDA MILLER AT 80
Seated in her favorite corner at Oak Place

tion, but in his exhausted condition he could not rally from it.

So passed the brave spirit of Lewis Miller, unafraid, out of the sorrows that had crowded on him in his declining years—out of pain and into rest.

CHAPTER XXV

TRIBUTES FROM OLD FRIENDS

Lewis Miller had done his great work. His inestimable contributions to aid the farmer in his toil and to increase his reward, have become part of the civilization of the present age. His work in education has proved a veritable benediction upon the country of his birth. In his religion he taught both by precept and example, even as he himself lived it; the simplest but at the same time the severest concept of Christian faith; he loved the Lord his God with all his might and with all his strength, and he loved his neighbor as himself. He lived and he taught courage and faith, not to fear the light of truth, nor yet to set up dogma as an idol and then to bow down and worship it.

A canvass of his associates and friends who have survived him for estimates of his worth, brought out a warm response; a boundless measure of praise, of enthusiasm. Some of these men were of his own generation, others of a later

day. In many instances detail was absent or indefinite, but the intent and trend were always clear. A frequent type of answer ran: "You can't say too much good about Lewis Miller. He was our leading citizen in every sense of the word, and a splendid man!"

And again: "Yes, sir. I knew him well, and I can vouch for what I say. No, I don't remember anything particular about him. His great work is on record. Used to see him down at the Buckeye Works, and he was a busy man on Sundays also. If you're writing a book about him you can't say too much good about him!"

Others were more definite in their tributes. Mr. George Sieber, a leading lawyer of Akron, said of the friend and neighbor whom from boyhood he had admired, respected and loved:

"Lewis Miller was easily the outstanding figure of this community. Physically he was a large man; and he was big in every way; big-hearted, sunny and genial in disposition, and big in the interest he took in the welfare of the community, especially in regard to its young people. He made his Sunday School a community centre. He was the soul of hospitality, and his house with its beautiful grounds and drives was the scene of many a delightful entertainment. His indomitable energy in business matters, his public spirit, his painstaking efforts in founding Chautauqua

left a deep impress on the nation. I am sure this had much to do in arousing the interest of his colleagues in business and in wealth, to a sense of their responsibilities and later activities, in many phases of public improvement."

Mr. Wilson M. Day, for many years editor of a local paper in Akron, and sometime an associate of Mr. Miller in the development of Chautauqua, said:

"Any conception of Lewis Miller as a man of business and as a philanthropist, even though it takes account of his generosity, will not present a correct picture of him unless it also recognizes his extraordinary mentality and his organizing ability.

"It is doubtful if he spent more hours in his testing and draughting room in the factory than he did in his little study at home, developing educational ideas. He attacked every problem in this field with the same sound common-sense, the same originality and freshness, and the same freedom from the bonds of tradition that he brought into play in his mechanical inventions. Hesitation was foreign to his nature, and, as for doubt, if it ever did tease him, he had the gift to exorcize it. It is unlikely indeed that doubts ever did worry him seriously, for his mind was intensely practical, and his native art was to build constructively on a working hypothesis.

"Being interested in Sunday Schools, he introduced five wholly novel features in their administration. These were: an adequate building especially designed for the purpose; an organization which developed his school into one of the largest of the country in what was comparatively a small town; a great Teachers' Class which he conducted, at 6 o'clock, every Sunday evening, and into which he introduced original ideas constantly, while strengthening his teaching corps; a supplementary course in instruction, in which credit for work done was given and a post-normal department for maintaining the interest of trained teachers, thus making them always available. Each of these measures was purely educational.

"When he was President of the Board of Education in Akron, one would have expected to find him engrossed with problems of new buildings, of ways and means, teachers' salaries, and the like, but a visit to his study at home would more probably discover him working at a new form of simplified spelling, or some method of imparting instruction so that pupils would react favorably toward it and imbibe it with gusto rather than dislike it and fight against receiving it. His mind turned naturally toward educational matters instead of to those of a financial cast.

"When he took his place on the Board of

Trustees of Mt. Union College, it may be that those in authority had his money in view when he was first elected. But so fertile was his imagination and so practical were his ideas for the development of the institution that within two years he was Chairman of the Board. He was insistent on keeping the College open during the summer months for those who had to work in winter, and no less insistent in broadening the curriculum so that ambitious young men could follow their native leadings. This notion of electives in place of a rigidly prescribed classical and mathematical curriculum was unheard-of back in the '60's, when Lewis Miller urged it with enthusiasm. Tradition hooted at it, dry scholasticism shook its head, and ignorance laughed at it. Yet to-day nearly every college has its electives, its summer session, while Chautauqua is a monument to the idea of summer work. It is far more than mere coincidence that Lewis Miller was thinking of these things long before Chautauqua was launched and University Extension was heard of in this country.

"He was never self-seeking, never a self-glorifying man; he spoke little of his own contributions either in money, in ideas or active work, to the various causes he espoused. But all who knew him intimately know well that his generous gifts in cash, great, even lavish as these were,

are not to be compared to the priceless gifts of his fearless, far-seeing, original and constructive mind!"

It is curious how rapidly we have advanced in the mechanic arts and in science during the past hundred years and more, while in law, in government and in the art of living we have almost stood still. In some respects we seem to have gone backward. Now the reason for this is no mystery; it is not even far to seek. For advancement in the mechanic arts we have had the Patent Office records, and in science we have had transactions of learned societies and their journals which are nearly complete as to what has been accomplished. In these respects, therefore, the living have been able to build with certainty on the work of the dead, whereas, in regard to other phases of life we lack complete historical perspectives.

So we offer this record of a man who sensed the trusteeship of his own life as a Great Obligation, in the hope that in its modest way it may help to point out the direction of progress in the great art of living.

Lewis Miller was a true christian gentleman who lived so close to the "Golden Rule" that the beauty of his character became manifest in the beauty of his countenance. "The world is better that he lived. His achievements will stand as monuments to his memory."

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